

# MARINE RECORD

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## LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and to improve the character of the service rendered to the public.

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## EFFECTS OF THE STEAMSHIP MERGER.

The effects of Morganizing British merchant fleets in the North Atlantic trade has now been dealt with and treated from every possible standpoint. The general tenor of thought and feeling seemed to be in effect, that Americans were to be congratulated, and the British commiserated.

The Seattle Post-Intelligencer, on the other hand, takes the following very different view: There is substantial reason to fear that it is the United States, not Great Britain, which will be affected adversely by the recently formed shipping combination. Instead of this combination tending to destroy Great Britain's shipping supremacy, it may operate to make more difficult the task of building up an American ocean marine.

It simply means that American capital has gone to the upbuilding of a foreign industry rather than to the development of a languishing home industry. Instead of being alarmed over the matter, the people of Great Britain have reason to rejoice, and those of the United States to lament the creation of the combination.

Under this new arrangement large amounts of American capital have gone into the purchase of the stock of British steamship companies. Every one of the vessels which have thus passed under the control of American capitalists will continue under the British flag and with British officers and crews. This strong combination of foreign shipping interests, which will remain foreign, is financed by American capital and will be strengthened by having the benefits of American economies in operation and management, as well as by the elimination of competition.

As vessels can be built abroad more cheaply than at home, all new vessels to be added to the fleet will be built at foreign yards. The vessels of the combination can be operated under the British flag nearly 50 per cent. more cheaply than they could be under the American flag.

Some hundreds of millions of American capital are thus going to the strengthening of Great Britain's commercial marine and to providing new work for British shipyards. Every one of these vessels will be a nursery for seamen for the British navy, and each one of them can be, on emergency, taken over by the British Admiralty as an auxiliary cruiser in time of war.

All that the United States will gain will be the returns to American capital from the earnings of the purchased ships, and possibly a safeguard against discrimination against American commerce. There is no gain of employment for American mechanics in American shipyards; there is no building up of an American seafaring population, from which the navy could be recruited in time of emergency; there is no gain in prestige to follow from the reappearance of the American flag on mer-

chant ships in ports to which it has been a stranger for a generation, and there is no auxiliary fleet to be added to the navy in time of war.

On the contrary, we witness American capital going toward strengthening British control of the seas, enlarging the work at British shipyards, training men for future use in the British navy, and furnishing Great Britain with an auxiliary naval force which would be of vast importance in event of war.

## AMERICAN COAL IN EGYPT.

I have in recent reports noted the rapidly increasing demand for American goods in Egypt and the establishment of a regular line of direct steamship transportation between New York and Alexandria, says John G. Long, agent and Consul-General at Cairo.

I now have to report further that an Egyptian government administration has just consummated the purchase of three large cargoes of American coal, said to be about 15,000 tons, for its own use. The steamers to bring this coal to Egypt were chartered in England and will take the coal at Philadelphia, and, after discharging their cargoes at Alexandria will return to Philadelphia with cargoes of sugar.

This news has excited much comment here, and the Egyptian government administration in question is severely criticised. It is claimed, by those who view this new departure with apprehension, that the quality of American coal cannot be compared with English coal, as there is about 755 per cent. of dust and small in it, and that English coal is not only much better, but also much cheaper; and they express their amazement and say they are at a loss to understand the motive of the administration in making this purchase.

The cost in the United States is \$2.50 per ton and freight \$2.30 per ton, aggregating a little less than \$5 per ton delivered at Alexandria. This large transaction, it is stated in some of the local newspapers, has created quite a sensation in the coal trade in England. It may be regarded as the entering wedge in the development of a new market for American coal and a hopeful indication that we are slowly, but most surely, gaining ground in Egypt, in spite of the peculiar difficulties and under conditions which only a few years ago, seemed too discouraging to justify effort.

There has within the past few years been marvelous improvement in all Egyptian industries and a more satisfactory adjustment of her population to her resources. Financial stability has been fully restored and trade established upon sound and safe lines. The country is exceedingly prosperous and well governed, and affords a splendid market for American goods.

## ONTARIO IRON ORE.

"While it may be possible that on account of glacial erosion the product of high-grade ore in Canada may be less than in districts of similar size and geological position on the United States side of the boundary," says Mr. C. R. Ban Hise in a report on the Lake Superior ore region to the United States Geological Survey, "it cannot be doubted that in the future important quantities of iron ore will be exploited in the Canadian Lake Superior region. Doubtless also this exploitation would have begun many years ago were it not for the duty which ores mined in Canada must pay when entering the United States."

The Vermilion iron-bearing series has been traced to Hunter's Island. Thence these rocks have been mapped by the Canadian Survey as extending first in a northeasterly and then in an easterly direction to the Kaministiquia river, and thence eastward to the Keneenawan rocks west of Lake Nipigon. Another great belt of iron-bearing rocks with various ramifications has been traced by the Canadian Survey from Rainy lake eastward to the Canadian Pacific railroad and to Lac des Mille Lacs. In this belt occurs the so-called Atikokan Range, in which large deposits of iron ore are said to outcrop.

East and north of the east half of Lake Superior various areas of iron-bearing rocks are also found. One or more belts are said to extend east from Lake Nipigon. A belt is found adjacent to the Black and Pic rivers. Several

belts of iron-bearing formation have been found in the Michipicoton district.

At the present time the only one of these districts which is an ore producer is the Michipicoton. While this district has not been connected areally and structurally with any other area in the Lake Superior region, the likeness in the character of its rocks and its succession to the Vermilion districts leaves little doubt that the two districts are in most essential point parallel. In the Michipicoton district the basement rock is a greenstone, showing the ellipsoidal structure on the great scale so characteristic of the Ely greenstone of the Vermilion district. It contains substantially all the varieties of material in the iron formation of the Vermilion district, and in addition great quantities of pyritic quartz rock. On the bluff back of the Helen mine and at many other places iron carbonate is abundant. Near the Helen mine Mr. Merriam reports this carbonate as containing 19 to 37 per cent. of metallic iron. These abundant cherty carbonates leave little doubt that the ferruginous cherts, ferruginous slates, jaspers and iron ores have mainly developed from a carbonate as the original rock, precisely as in the various districts south of Lake Superior. However, it is clear that the pyrite of the carbonates and the pyritic quartz rocks have also made contributions. At the present time the iron formation has been developed only at the Helen mine. Here a good body of high-grade hematite has been shown by stripping to extend in considerable areas to the rock surface.—Bradstreets.

## AN IMPOSSIBLE DRIFT.

"The journey of a bottle from central Illinois to the Pacific ocean has just come to light through the receipt of a letter by Walter Roeder, of Bloomington, Ill., from Jesse Wilson, of Santa Monica, Cal., saying that he had found a bottle off the coast of California which contained a letter written by Roeder and asking the finder to inform him when and where it was found. The letter was written on January 27, 1900, and after being placed in the bottle the receptacle was cast into the water of the Mackinaw river, ten miles west of Bloomington. The bottle must have followed the river until the confluence with the Illinois was reached and thence floated to the Mississippi and through the Gulf of Mexico to the Atlantic ocean. The currents of the ocean are supposed to have carried the bottle around Cape Horn and thence up the Pacific coast. The journey exceeded 10,000 miles. The bottle and message betrayed little evidence of a long journey."

The foregoing from the Scientific American, May 24th, represents to us an impossible set and drift of current. To anyone who has battered a square rigged vessel for several weeks off Cape Horn or threaded the tortuous channel in the Magellan Straits, the bare idea of such a drift appears ridiculous.

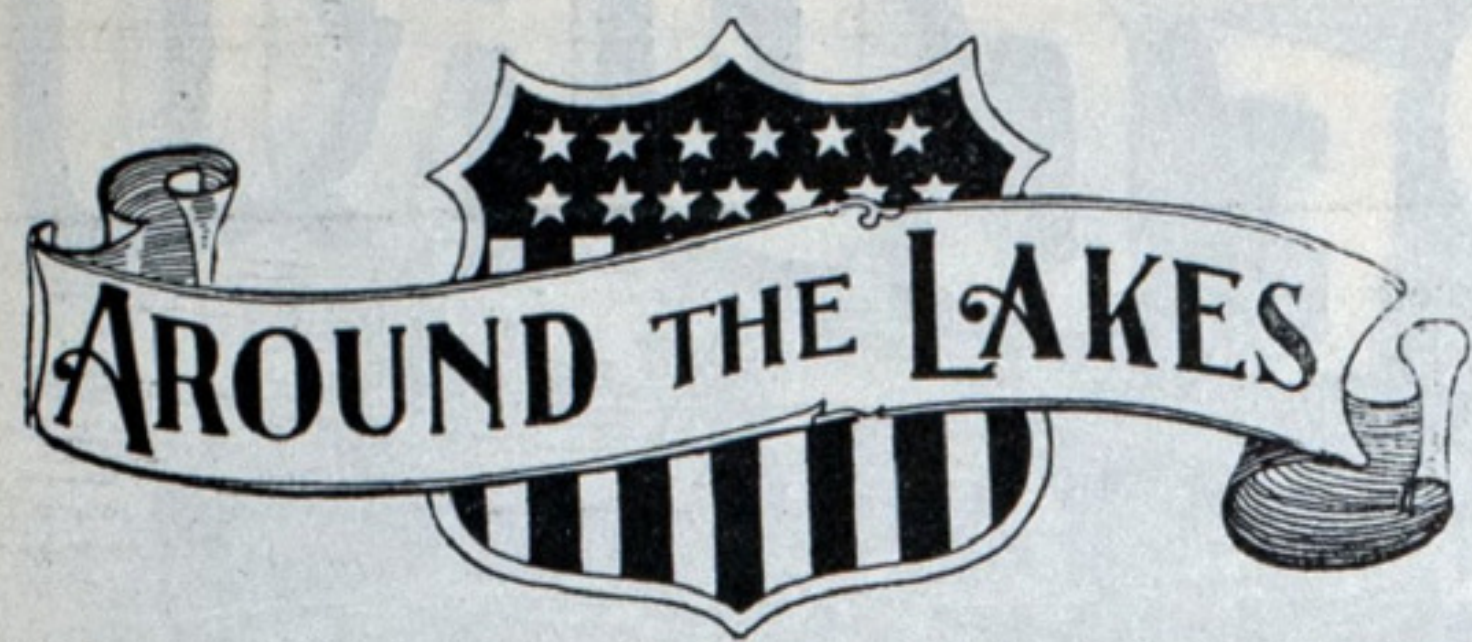
Roughly speaking this would show a set and drift of 357 miles each month for 28 months, or at the rate of 36 miles every 24 hours in a fairly direct course to destination and at an hourly rate of 1½ miles.

Well! it may be well to record all such apparently freakish lies or purposed mis-statements, even though the origin or cause of such may be entirely unknown. Moreover it is safe to say that that bottle never drifted near the southern extremity of this continent. There is no open, floating means of communication across central America and it never did go east about so as to circumnavigate the Antarctic, hence, the peculiarity of the Annanias-like romancist.

Roeder and Wilson will, no doubt, find an increase of mail matter relative to their miraculous discovery in the set and drift of Ocean Currents.

Steamer and Schooner Crossing.—Evidence considered, and held to establish the claim that a collision between a steamer and a schooner in Chesapeake Bay on a stormy night was due solely to the fault of the steamer in failing to maintain an efficient lookout, or to reduce speed after lights were reported two or three miles off the port bow, until the location and course of the vessel carrying such lights could be ascertained, as well as because of improper maneuvers after the schooner was seen when 1,000 feet away, which were in themselves calculated to bring on a collision. The Richmond, 114 Fed. Rep. (U. S.) 208.





### DULUTH-SUPERIOR.

According to present plans the Sonora, the second Tomlinson boat, will be launched from the West Superior yards of the American Ship Building Co., on Saturday next, May 31.

The Dominion government will present Capt. McDougall, of the Canadian Pacific railway steamer Athabasca, which rescued all on board the steamer Preston on Lake Superior on June 29, 1901, with a fine piece of silver. First Mate McPhee will be given a binocular glass, Chief Engineer Lockerby a gold medal, and each member of the crew will receive a suitably inscribed silver medal.

An important mining deal has just been consummated at Marquette, by which the Saginaw Iron Mining Co., of Duluth, came into possession of 200 acres of lands lying a few miles southwest of Ishpeming. The consideration was \$50,000. The tract, which contains a valuable deposit of iron ore, was purchased from the Heather heirs, of Vermont, F. O. Clark, Ellen J. Clark and Olive L. Harlow, of Marquette, and H. H. Mildon, of Ishpeming.

The new elevator to be built at Port Arthur for the Canadian Pacific road is to be of tile. The company, before deciding upon the material, made extensive observations. It was thought at one time they would use concrete. The company's representatives visited Duluth for the purpose of inspecting the Peavey concrete elevator, and they thought so well of the material that it was supposed they would recommend it. Wood as a material for big grain elevators seems to have gone entirely out of date. Steel, concrete and tile are the materials now in demand.

The contract to repair the revetment at the Portage Lake upper canal has been awarded to Whitney Brothers. The bids were opened this week and as that of the Superior contractors was the lowest they secured the contract. This work is made necessary by the damage done by the barge Yukon in the latter part of April. The extent of the damage to the revetment cannot be learned until the contractors have made some progress in the preliminary work of repair. It is certain the bill will amount to several hundred dollars. The government officials will send the bill for such repairs to the owners of the boat. The plans for the repairs on the revetment were made in the office of the government engineer in Houghton.

There has been quite a desire evinced to knock out the \$2.50 rate per M feet of lumber to lower lake ports, but vessels remain firm and will not accept any reduction. A number of lumber dealers are members of the Lumber Carriers' Association, they own their own tonnage and can charge themselves the \$2.50 rate, thus getting their lumber regularly carried forward, while holding that all others pay up to the \$2.50 notch. Of course there may be nothing in this, and yet it is as well for the purely vessel owning side of the business to more closely consider the freight rate question. The shippers, in some cases, the term meaning carriers and consignees as well, created a scarcity of cargoes by announcing that their supply of dry lumber was used up. From what can be learned after a close scrutiny of the conditions, it appears that there is a very large amount of lumber be sent down the lakes this season, an unprecedented shipment, in fact. The lumber boats, running without any great hindrance and without addition to their number from outside sources, are about equal to the task, moderate dispatch being obtained. Any withholding of the lumber from the market or any laying up of boats means an increased need for the tonnage later on and of consequence a better rate of carriage. The immediate result is expected to be a reduction of freights, but whether this will not rebound into higher rates later on is a question. The issue, however, is by no means sure, depending as it does on the quality of the backbone of the Lumber Carriers' Association, for it is believed that a determined resistance on their part will prevent a break, especially if it is accompanied by a laying up of boats, always remembering the hint advanced in the preceding part of this item.

The divisional court have given judgment in the case of Rex vs. Tyrie, one of the first cases to be affected by the recent decision of the Court of Appeals in regard to the Ontario Lord's Day act. Capt. Tyrie was captain of a vessel plying between Welland and Buffalo, and was fined by the Welland magistrate for running on Sunday. He appealed, claiming that the Ontario act did not apply to vessels plying between Canadian and United States ports, and the divisional court has sustained this appeal. The effect of this judgment is to exempt boats running from a provincial to a port out of the province from the Lord's Day act.

### CLEVELAND.

The Cleveland & Buffalo Line has resumed its excursions to Niagara Falls and Buffalo.

O. C. Pinney, Esq., admiralty lawyer, represents the interests of the Licensed Tugmen's Protective Association in the action which the Great Lakes Towing Co. has entered against its members.

The Detroit & Cleveland Line has re-introduced for the season its week-end excursions to Detroit. Tickets are being sold at a reduced rate for the Saturday night boats and are good for the boats returning the following night only.

The enterprising town of Lorain has voted to issue bonds to the extent of \$200,000 for river improvements. That port of vast possibilities offers a clear navigable river 400 feet wide and reaching for several miles from the entrance piers to the steel works.

The Cleveland & Toledo Line began its excursions to Put-in-Bay on Sunday last, and will continue them on Sundays until late in the fall. The regular excursion season to the Bay has not opened, as to the daily trips, and may not until the first of July, or at least late in June, the demand for such a service dictating the opening date.

The steamer Minnewaska, of the American Navigation Co., which was built at the old Globe yard, and is one of the two to be sent East in sections, is now being cut in two at the drydock. As soon as the bulkheads are built in the halves she will be sent East. The Minnetonka, her sister ship, is now in drydock at Quebec, having the halves united.

All of the longshoremen of Cleveland have decided to go on a picnic June 22. They have chartered a special train on the Baltimore & Ohio railroad, and will go to Cottage Grove Lake, a resort which is conducted under the jurisdiction of that line. The longshoremen have selected Sunday as the day for their outing that the business along the river may not be interfered with.

Capt. Phillips, who has been sailing the steamer Wawatam this season, has resigned from the Pittsburg Co.'s fleet and has accepted a position with J. C. Gilchrist, as master of one of his boats. Capt. Edward Dyble, formerly in charge of the barge Carrington, has been appointed master of the Wawatam, and his place in the Carrington will be filled by the promotion of H. G. Harbottle, who has been mate of the Eades.

The following meteorological observations are furnished by the office of U. S. Weather Bureau, for the week ending May 29th. Prevailing wind direction for the week southwest; highest velocity 36 miles, from the northwest on the 27th. Mean temperature for the week 63, highest temperature 88, on 22nd; lowest, 42 on 28th. Sunrise and sunset data computed for local time; May 30th sun rises, 4:26; sets, 7:28; June 2nd sun rises, 4:25; sets, 7:29; June 5th, sun rises, 4:24; sets, 7:31.

The members of the Licensed Tugmen's Association have been after Capt. James Bowen and Capt. William Bowen, now operating the tugs Cascade and Steadman, at Lorain, contrary to the orders of the association. The tugs are operated by the tug trust and these two men are necessarily in their employ. At a lengthy session of the local members and several of the Cleveland officials the situation was discussed, and a committee appointed at the meeting waited on the two captains and notified them that they must get off the tugs. The committee met with a cordial reception but received a flat answer. What action will now be taken is not known, but it is believed that steps will be taken to remove the two men from the association. The captains are not afraid of any action the association might take, as they say Cleveland is not justified in holding up the Lorain men for selfish reasons.

After being tied up for eight weeks Assistant General Manager Hill and Local Manager Brovan fitted out the tug T. C. Lutz, Wednesday. Capt. P. Stewart, of Bay City, was appointed master of the Lutz, and an engineer named Woods took charge of the machinery. The new men were only aboard the tug a short time when the longshoremen on the package freight docks succeeded in getting the fireman and deckhand to quit. They were put to work in the freight sheds. The captain and engineer quit the tug last night, and the Lutz was tied up near the Main street bridge. The Buffalo and the Detroit passenger steamers were towed out by the independent tugs. The officers of the Licensed Tugmen's Protective Association said when they learned that policemen were aboard the tug Lutz, that the company was going to unnecessary expense. We will not interfere with the operation of the company's boats, said an official, and their men will not be bothered by the members of our association.

The strike of the Licensed Tugmen's Protective Association has reached the crucial stage. President McCarle has come to Cleveland to take part in framing the measure that will decide the future of the men. The members of the local have been accused of conduct which endangers the continuity of their license, the officers of the Great Lakes Towing Co. being the accusers. The local inspectors have cited the men to appear and give reasons why the licenses should not be revoked. The men have listened to their words of advice and reproof, and have about made up their minds as to what they will do. At this critical stage President McCarle is coming to Cleveland to assist in advising the proper course. A compromise of the difficulties leading to the strike has been suggested, with the understanding that if it is agreed to the charges against the men will be withdrawn, and the case dropped. Whether

the matter is dropped, however, depends upon the conferences which are to be held to-day. It is expected that O. C. Pinney, Esq., who is representing the men, will present to the inspectors this morning (Thursday), their answer to the interview which the tugmen and the inspectors held on Tuesday. The outcome is in doubt.

Al. Rumsey, the well known shipping master for the Lake Carriers' Association, may or may not entertain congressional aspirations, but whether he does or not, he is being boosted for the job by his neighbors around Vermillion. Mr. Rumsey may not be loaded down to the scuppers with local legislative lore, but who is to say that he would not make a more marked and aggressive representative than his possible future colleague, the eminent member from Wisconsin, Yon Yonson, of Yonkersville. For that matter, scores of others, not omitting our other renowned sailor lad, "Sockless" Jerry Simpson, who was no man's baby, in or out of Congress. Go for the renowned distinction Professor.

The slow discharging of cargoes seems to be getting worse, and have come to be a permanent feature. Not only that, but the promises for the week are somewhat gloomy, since a holiday comes toward the close, making it impossible for boats which come in here Monday or Tuesday to get away before the opening of next week. Two years ago boats were getting out of this port in two days. Now the average time for a boat in port is five days under the most favorable circumstances, but vessels are more often delayed seven than five. It is figured that the delays so far this year have amounted to 33 1-3 per cent. of the tonnage. In other words three boats are doing the work which two could, or if the present delays were carried through the season, a fleet which can carry 21,000,000 tons of ore would be able to bring down only 14,000,000. The delays to date have already overcome in a large measure the early start which the boats made. Coal shipments are also unsatisfactory in the detention experienced at Ohio loading ports.

### BUFFALO.

Tonawanda is still receiving lumber at a lively rate from northern Michigan ports.

Talk of a large shipyard, drydocks, boiler and engine works for South Buffalo has been going the rounds, coupled with the name of Capt. James Davidson, Bay City. Capt. Davidson has certainly been looking over the location at Stony Point, but has not broken ground there yet for any purpose.

A committee reported to Commander Dunlap, U. S. N. Inspector of the Tenth Light-House District, that there was a dangerous shoal in the channel at the head of Strawberry Island. The shoal interferes with vessels that make a turn while heading for Black Rock. It is said that several boats have run aground there while heading in and out of Black Rock harbor. They asked Commander Dunlap if he could arrange for the placing of a lighted buoy at the low water point. Commander Dunlap brought out a chart and the point was designated where the shoal is located. As soon as the light-house tender Haze returns from her present trip, an investigation of the shoal will be made.

The axe has fallen and 25 licensed men are cited to appear before the local steamboat inspectors next Monday, to show cause why their licenses should not be taken away. The licenses are only granted subject to certain penalties embodied in the Revised Statutes. The easiest way out of the muddle would be to send all licenses back to the Treasury Department and then to stand an examination for competency alone, without the million and one penalties attached. Local inspectors must surely think that they have a lot of little, ignorant children on their license pads. This winter, the several associations of organized skill and labor should get after the head of the Inspection Service, and make him cancel about two-thirds of his old flummery license laws. Of course the local inspectors must act as they are instructed, even to convening an admiralty court, issuing injunctions for or against labor, or any other asinine procedure. Action against the tugmen has been entered at Cleveland and Chicago.

No notices have yet been served on the engineers to appear before the local inspectors, but Capt. Pope says this will be done within a few days. The tugmen threaten to bring counter charges against the Great Lakes Towing Co., claiming a violation of law in requiring men to work more than twelve hours a day. They say they have employed the best legal talent to defend their case. It is thought, that as Capt. James Stone, the supervising inspector of the district, is stationed at Cleveland, and the counsel of the Great Lakes Towing Co., H. D. Goulder, Esq., being also there, that the first fight will be brought off in Cleveland. In any case, suppose the men are on strike, who is to say that they can't strike if they want to. It is not exactly a case of strike or lockout either, unless it is a case of both with a touch of boycott in it. However, there is no chain around a man's neck just because he has to hold a license to enable him to work for his daily bread. Even a licensed laborer can pick his job, or quit it, or even starve.

The lightship intended for use at Grosse Point has been completed by Johnson Brothers, Ferrysburg, Mich., and will be towed to its station by the light-house steamer Marigold. The new boat is built of steel and cost \$15,000.



CHICAGO.

J. I. Case & Co., Racine, bought two cargoes of basswood this week, Chicago and Milwaukee, also received some consignments.

The steamer America, which went ashore at Waughshance, was surveyed here on Thursday. It was shown that sixty-three plates in the bottom would have to be removed. Her frames are also seriously damaged, and extensive repairs, which will lay her up for some time, are necessitated.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau, Chicago, for the week ending May 28. Prevailing wind directions for the week S.E.; highest velocity 54 miles, from the N.E. on the 25; mean temperature for the week, 62; highest temperature, 80 on the 22nd; lowest, 40 on the 27th.

Speed trials of the steamer Charles H. Hackley, between Chicago and Muskegon, show her to be capable of making sixteen miles an hour economically. Miles Barry says she can be speeded up considerably more, but she must first be equipped with a new set of propellers. The twin screws now used, he says, measure only eight feet, and it is intended to substitute a new set measuring nine and one-half feet.

The steamer Easton, owned by the H. W. Williams Transportation Co., of South Haven, will be chartered by Graham & Morton and will run between St. Joseph and Milwaukee. In a recent combination of the Dunkley & Williams lines the Easton was not included. The Easton was formerly in the excursion business on Chesapeake Bay. She was brought here last year for the Chicago-South Haven run, and has averaged a steaming record of 15 miles an hour. It is said Milwaukee couples will be given an opportunity to participate in St. Joe's Gretna Green by means of the Easton. The deal, though not yet on paper, is practically assured.

Commend us to brevity in reporting marine casualties as given out last week. "There were four steel corporation boats ashore in Lake Michigan yesterday. They were the Colgate Hoyt and barge 202, at Glencoe, a short distance from Chicago, and the J. C. Colgate and barge 137 on Pilot Island, at the mouth of Green Bay. In the course of a little while we may get to lengths instead of names, viz: One-eighth mile Steel Corporation Co. boats now in port, 1/2-mile of them just cleared and a 2-3 to 3/8 of a mile expected to arrive within the next, say, fraction of an hour, day or week. The adoption of the metric system may knock this style out somewhat, but marine people are generally the last to adopt new fangled styles, or until worth is proved.

A case of considerable interest to members of vessel crews on the Great Lakes will come up in the United States Circuit Court of Appeals for the Seventh circuit, at Chicago, on June 3. This is a case decided in Judge Seaman's court in Milwaukee, May 7, 1901, the verdict being in favor of the appellee, the Stewart Transportation Co., which was sued by James Galbraith, John Weimar, and William Bachelor. The case was upon a question of the right of a vessel's crew to claims for extra compensation in the way of salvage, where a vessel's cargo is jettisoned by the crew on account of going ashore or because of some other mishap requiring the removal of the cargo or a portion of the same. The counsel for the transportation company in this case, Geo. C. Markham and Talmadge Hamilton, took the ground that the crew was not entitled to extra compensation in salvage for the work of unloading the vessel, and they won before Judge Seaman on that contention. Now the case is to be reviewed in the Court of Appeals.

Formal complaint was filed with the United States Steamboat Inspectors, on Tuesday, by Charles E. Kremer, Esq., representing the Great Lakes Towing Co., Cleveland, against thirteen masters and twelve engineers asking that their licenses be revoked on the grounds of discriminations which were, in the language of the statutes, "a hindrance to navigation." The action of the tug trust followed close on the heels of the union's threat to surrender all licenses if the licenses of any of its members were taken away. No time was set by the inspectors for hearing the complaint. At the formal hearing the inspectors will have with them as their legal adviser United States District Attorney Bethea. The union can be represented by counsel if its officers so wish. If the men committed any wrong while serving under their licenses there might be some reason in citing them to appear before the local inspectors, but as peaceful law-abiding citizens, the local inspectors, although acting under orders, should not lend themselves to taking the bread out of their licensed brother's mouths, by trying to take their living from them. The curse of this whole thing is on Chief Dumont and his hornswoggling work, in piling up Revised Statutes curtailing the citizen's rights of men better than ever he dare be.

An important point concerning demurrage has just been passed upon by the Appellate Court here. It is that the acceptance of freight money, trip by trip, is not a bar to demurrage claims. In this case, C. W. Elphicks, owning the Thomas L. Parker, Josephine and Ohio, sued the Iroquois Furnace Co., for \$3,700, on the ground that his boats had been unduly delayed when chartered by the furnace company in 1891. Judge Haney decided against him, and now after all three boats have passed out of

existence, the Appellate Court reverses the decision and gives Capt. Elphicke his claim in full. Of course there is no bar to legal proceedings being commenced for demurrage claims, but the usual and universal custom drilled into shipmasters is to collect each day's demurrage as it elapses, and the amount due for Sunday to be paid on Saturday. Capt. Elphicke is to be congratulated on the outcome of this suit and given thanks for fighting the fight of a majority of vessel owners. It is now clear that demurrage in dispute is like any other recoverable claim, but it is considered the best policy to close demurrage claims day by day or as near thereto as possible.

Examination of the Twenty-second street bridge, which was struck by the steamer Madagascar Monday morning, showed that the center pier is not much damaged, but that the west abutment is seriously out of condition. The steamer's stem broke twenty piles and shattered the woodwork so badly that it will take two weeks to repair it. Meanwhile the street car line crossing the bridge will operate slowly. City Diver Donovan will resume examination of the Washington street tunnel. An examination of the north pier of the Dearborn street bridge was made by City Diver Donovan, acting under instructions from City Engineer Ericson. It was found that the pier had been very badly shattered by the frequent battering given it by passing steamers, and that it would be unsafe to permit the resumption of street car traffic over the bridge. Diver Donovan found cracks and fissures in the masonry into which he could insert his arm for its entire length without finding the end. The piers rests on piling entirely surrounded by water, and supports not only the north end of the bridge, but the south end of the viaduct as well. After being struck and loosened on Friday by the Anchor line steamer Lycoming, the pier was lifted clear of its foundation Saturday, and set down six inches west of its former location by the Western line steamer Montana.

"Every tugman on the Chicago river will give up his government license at the inspector's demand," said Louis Bohman, president of the Chicago lodge of the Licensed Tugmen's Protective Association. "We have desired peace in the fight with the Great Lakes Towing Co., but if the vessel owners or vessel interests demand that commerce shall be tied up we are willing to concede them the point. Our members, however, are determined that no move shall be made against a few of us. It will be all or none if government aid is sought and secured by the Great Lakes Co. in Chicago. There will be a meeting of the association Wednesday night. If any move is made to cite any tugman before the inspectors to show cause why their papers should not be taken away before that time, and if we learn that the inspectors will rescind the papers, every license held in Chicago will be forwarded to the inspector's office from the meeting and we will await the consequences." One of the most conservative engineers asked me who his license belonged to any way? Whether to Chief Dumont, at Washington, our local inspectors, or himself? He said that he felt under no personal obligation to the government clerk in the local inspector's office for scribbling out the few words on his form of license once in five years; the man was paid a monthly salary by the government for just such work. It would be a good idea for local inspectors to keep all licenses on file and issue them like trip sheets. Something ought to be done with all such humbuggery. Dumont will need to exercise his best jugglery on this occasion, or his subordinates will dig his official grave over the cancelled and defunct revocation of license racket.

DETROIT.

About 800,000 feet of basswood and ash reached here from Menominee, ex Tempest and Manitou. These are the first cargoes from that port for some years past.

The coroner's verdict has exonerated Capt. Hepburn, of the naphtha launch Frolic, and the master of the tug Woods, from all blame in the recent collision at Toledo, at which time several lives were lost.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau, Detroit, for the week ending May 27th. Prevailing wind direction for the week, W.; highest velocity 30 miles, from the N.W. on the 26th; highest temperature, 84 on the 22nd; lowest, 40° on the 27th.

The Pacific coast lumber carrier Redondo, which was launched from the yards of the Craig Ship Building Co., Toledo, last winter, has cleared light for New York, where she takes a general cargo for San Francisco. The next launching at Craig's will occur about the first of June, when No. 89, the Thomas Adams, goes into the water. She is rapidly nearing completion. The Thomas Adams is being built to the order of The Adams Transportation Co., Detroit. She will have a capacity of about 5,500 tons and a length of 380 feet.

C. L. Parker, manager of the new west side ferry company, just returned from Buffalo, reports their boats, the Luna, nearly ready for service, and expects to commence an hourly service June 7. The route will be from the foot of Twelfth street to Sandwich, thence to Lagoon park, then across the river to Delray and up to Twelfth street, with stops at the copper dock and the boulevard. The fare will be 5 cents across the river, and 10 cents for the round trip. The object of the line will be to give Delray and the west end a ferry service the same as the central and eastern portions of the city now have. The Luna will carry a thousand people.

WHY IS IT?

BY WALTER J. BALLARD.

The consuming power of international commerce aggregates yearly, according to a recent carefully prepared tabulation by the Treasury Bureau of Statistics, \$11,630,000,000, divided as follows:

Europe .....	\$8,300,000,000
Asia .....	900,000,000
Africa .....	430,000,000
South America .....	375,000,000
Oceanica .....	325,000,000
	<hr/>
North America .....	\$10,330,000,000
	<hr/>
	\$11,630,000,000

The share of the United States in this vast water-reached trade of \$10,330,000,000 is only \$1,342,000,000, or about thirteen per cent., made of sales to

Africa, 5 per cent. of its imports, or .....	\$21,500,000
South America, 10 per cent. of its imports, or .	37,500,000
Asia, 10 per cent. of its imports, or .....	90,000,000
Oceanica, 10 per cent. of its imports, or .....	32,500,000
	<hr/>
Europe, 14 per cent. of its imports or .....	1,162,000,000
	<hr/>
	\$1,342,000,000

besides forty per cent. of the purchases of North America, exclusive of the United States.

By this tabulation it will be seen that we are selling only a little over thirteen per cent. average of the goods bought by those countries whose communication with us is by water, while of the consumption of Africa, with its 175,000,000 people, we are reduced to a miserable five per cent., or \$21,500,000, out of \$430,000,000.

Why do we make so poor a showing as this? Why is it that with our overwhelming natural resources, our thousands of well equipped factories, our five and a half millions of operatives, our up-to-date processes of manufacture, our systematized factory management, our millions upon millions of acres of food-producing lands, our teeming flocks and herds, our "captains of industry," with their billions of dollars of capital, our increasing active consular service, our well informed statistical departments, our trade-encouraging government, and our energetic, dominating, American spirit of enterprise, we are not selling at least fifty per cent. of the outside world's consumption, and thereby make the record to read as follows:

We should sell fifty per cent. ....	\$5,165,000,000
Less present sales .....	1,342,000,000
	<hr/>

Gain in foreign trade .....

Why is it that our capitalists, our wage earners, our merchants and our farmers are deprived of the increased dividends, increased wages, increased trading profits and increased farm earning which would follow the increased foreign trade?

Why is it that by the absence of this increased foreign trade, and in view of the incontrovertible fact that the bulk of what we sell or would sell abroad is the product of our natural resources, or the manufactures thereof, our natural wealth is not augmented by nearly the entire selling value of that increase?

Why is it that of the trifling thirteen per cent. of that foreign consumption, which we do with great difficulty now sell, we have to hire foreigners and foreign vessels to deliver more than nine-tenths, at an expense to ourselves of more than \$200,000,000 yearly for freights?

Why is it that we find it almost impossible to get our young men to take up navigation as a profession?

Why is it that our Navy is insufficiently manned with trained and experienced sailors?

Why is it that our capitalists have been compelled to combine foreign vessels even with the condition that the most important of those vessels shall retain their foreign allegiance and foreign flag, and be subject to foreign call in time of war?

Let those Congressmen who are opposing or fearing to vote for the ship subsidy bill, passed by our patriotic Senate, answer, remembering that failure on their part to do what is right at the right time is as fatal in its effects as doing what is wrong.

Schenectady, N. Y., May 27.—The Troy Daily Times.

NEW LIFE SAVING DEVICE.

An important improvement in the methods of throwing life-lines to stranded ships has been made by Capt. Andre, of the Chicago Life-Saving corps. A steel rocket is attached to the life-line at night, and it leaves a trail of light behind it so that the wrecked seamen may see what is being done to aid them, while there will be also enough light for the men on shore to locate a vessel in distress. A combination of colored lights is used in the rocket, which will burn for nearly a minute, making a continuous trail of light. Under the present methods shots are fired time and again without result, and the men on the vessel have no means of knowing that they are seen. With the rocket line there can be no doubt of the whereabouts of the life-savers. For use in the daytime, Capt. Andre has devised a whistle which may be used in the case of fog, and will answer the same purpose as the rocket at night.



## CANADIAN PROGRESSION.

"Duluth is destined to soon lose a large portion of its grain business," said A. McComber, a prominent barrister of Port Arthur, Canada, when in Duluth recently. "The new Canadian Northern railroad will practically control the wheat shipments of Manitoba, and will, of course, bring the grain over its own lines into the Canadian port."

Mr. McComber represents the Canadian Northern legal interests of Port Arthur and Fort William. "Work on the new trunk line is progressing rapidly," said he, "and it is only a matter of a short time till it shall be extended to the Pacific coast. More than a thousand miles is already built and it extends now to a point about six hundred miles west of Winnipeg."

"I don't believe the officials have yet determined at exactly what point on the coast the line will terminate, but as the British Columbia government is making propositions for it to come to Victoria that port may finally be decided upon."

"Port Arthur is booming, and will soon in many ways rival Duluth. We already have six large elevators there and two more are building, two at the Port and two at Fort William. The large new steel elevator of the Canadian Pacific burned a few days ago. It was believed to be so thoroughly fireproof that no fears of disaster from that source were entertained, and consequently no provisions were made. Fire started somehow in the chaff, and before anything could be done the entire concern was in flames, the wheat being rapidly consumed. Over 100,000 bushels of wheat were entirely destroyed. The structure had a capacity of about one and a third million bushels."

"Mining, lumbering and grain interests, generally, are rapidly improving in that section. New capital is coming in and new interests are being promoted right along. A number of Duluth people are becoming interested, particularly in the iron mines. The 'Old Beaver Silver Mine,' owned by General Alger, and Colonel Hecker, of Detroit, was sold recently to American parties."

Mr. McComber came down by boat, and says he looks forward to the time which he hopes will be soon, when his city will be connected by direct rail with Duluth.

## LARGEST CABLE CHAIN EVER MADE.

The Newhall Chain Forge and Iron Co., 26 Courtland street, New York, secured the contract for the large anchor chain cables required by the Eastern Ship Building Co., of New London, Conn., for the two large steamers which the latter company is building for the Great Northern Steamship Co. and Northern Pacific Railroad Co. These steamers will be the largest cargo carrying steamers ever built in the world, and are designed for the Pacific

traffic between the United States and the Orient. The chains consist of about 6,000 feet of stud link cables. Each link of this large sized chain weighing about 165 pounds, and the total tonnage represented by this order will exceed 435,000 pounds, of the value of about \$35,000.

These 3 3-16 inch chains are the largest ever attempted in the country, if not in the world. The Newhall Chain Forge and Iron Co. have associated with them in the manufacturing of this chain, the iron expert and chain maker, Mr. Eli Attwood, formerly of Staffordshire, England, and now the general manager and superintendent of the shops in Lebanon, Penn., where the chains are being made. The bending machine on which the iron bars of this large diameter will be shaped preparatory to reheating for the purpose of side welding, is the invention of Mr. Attwood, who has had the same patented in this country and England. The chain will be inspected and tested under the supervision of inspectors of Lloyd's Registry, of England. The competition on this order between England and the United States is said to have been exceedingly close.

Lloyd's Registry, of England, requires a breaking strain of 220 3/4 gross tons or 494,480 lbs. on 3 3-16 chain. The result of tests was as follows: The first test of 510,000 lbs. had no effect on the chain. The second test, of 549,500 lbs. broke feed and jaw of testing machine, but did not fracture a weld or link of chain, thus leaving in doubt what strain would part the chain. This exceeds the requirements by 55,020 lbs. or 27.51 net tons.



ELI ATWOOD.

President and General Manager Lebanon Chain Works, Lebanon, Pa.

## POSTAL SERVICE ON DETROIT RIVER.

The present indications are that the year 1902 will be the greatest in point of business done in the history of the Detroit river marine postoffice. Superintendent Jacklin, in charge of the service, says that so far this season the number of pieces of mail received for delivery to vessels has far exceeded any previous years and there is constant increase. One day last week as many as 400 pieces were received in one mail and every minute that the carriers are not busy delivering to vessels they are hard at work sorting mail.

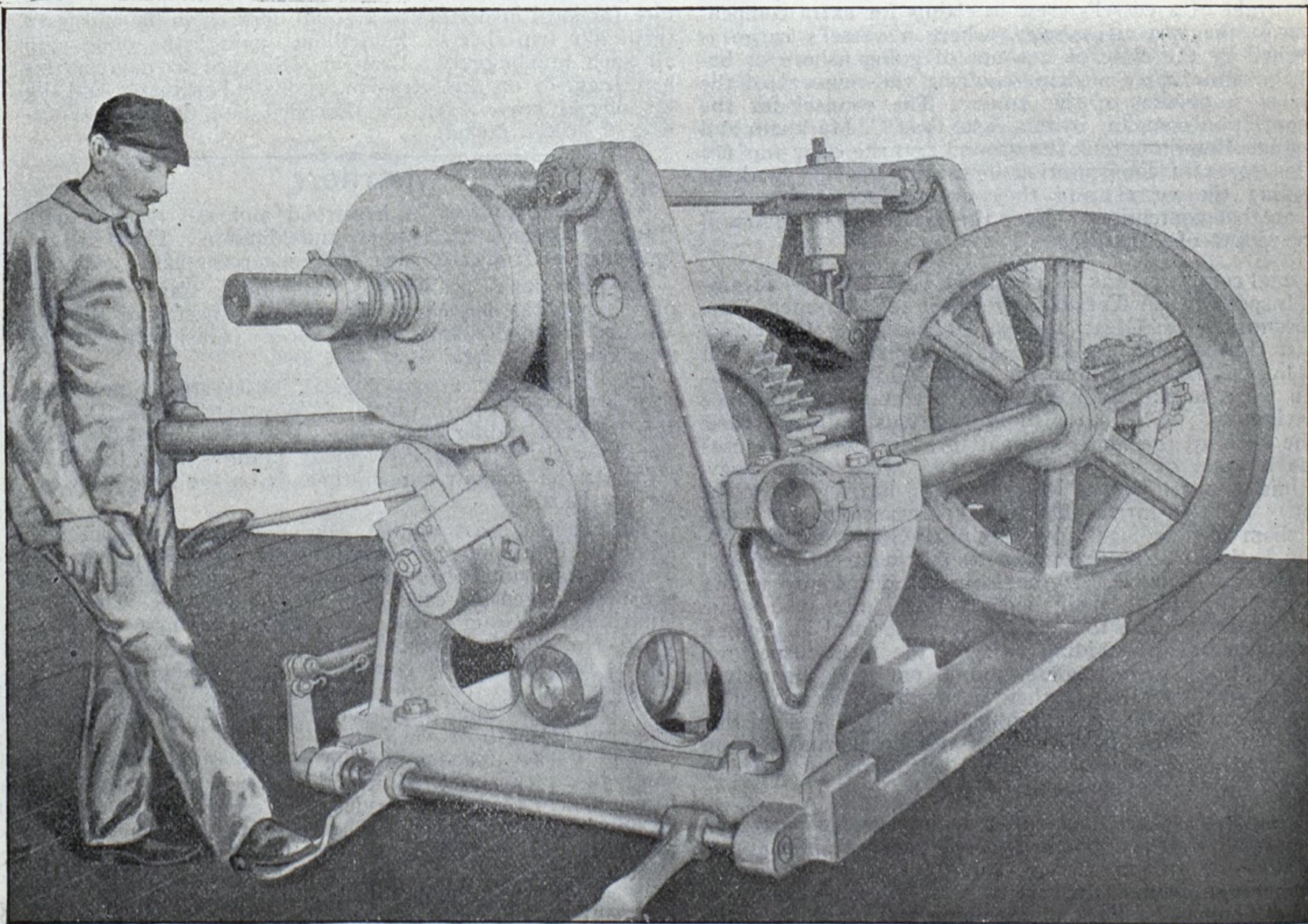
The increase of work has made another carrier necessary, and word has been received from Washington that, beginning July 1, another man will be allowed. The date of the examination for this position has not yet been announced, but it will probably be held next month. There will not be a big class at the examination, as there are altogether, only about six men on the whole chain of lakes capable of filling the position. These are men now employed by the private marine reporting agencies at Port Huron and Capt. Westcott's men at this port. The new carrier will go on as an assistant on the night shift from 8 o'clock at night until 4 in the morning, the time when work in the small boat is most hazardous, during which the regular carrier has little time to arrange his letters.

## A NEW ANCHOR LINER.

The Anchor line is building a new steel steamer, which will be known as the Tionesta, and which will be placed in service on the route between Duluth and Buffalo as a passenger and cargo boat early in the season of 1903. The hull of the steamer, which is being built at the Wyandotte yards of the Detroit Ship Building Co., will be of steel to the promenade deck, divided into nine water-tight compartments by eight bulkheads. There will be a double bottom with a capacity for 800 tons of water ballast. She will have a cargo capacity of 3,500 tons, with a coal bunker capacity of 350 tons. The engines are to be quadruple expansion, of 2,500 horse-power, four cylindrical boilers, using the Howden hot draught system. The general hull dimensions of the craft are as follows: Length of keel 340 feet, length over all 360 feet, beam 45 feet, depth 28 feet.

The passenger accommodations will be located above the freight deck and forward of the machinery. The passenger entrance will be on the main deck amidship, where a space 20 feet in length, the entire width of the steamer, arranged as a lobby, with ample baggage rooms, with a wide stairway leading to the berth deck, will be located. The berth deck will have four lines of staterooms, which, with the center hall, will occupy the full width of the steamer, and will extend from the smokestack to the forward bulkhead. Aft of the smokestack will be quarters for the officers and crew. No passenger rooms will be located over the machinery. Each room will be provided with two berths, a cushioned sofa, electric lamps and bells, etc. On the promenade deck will be the music room, library, dining saloon, galley and mess room. The dining saloon will be located in the center of the ship, and will have seating accommodations for 136 passengers. On the promenade deck will be located eight parlor rooms, each with private bath. The smoking room extreme aft on that deck. The fittings and furnishings of the boat will be strictly up to date.

It is intended that the Tionesta will be run for the season of 1903 on a ten-day schedule, making the same ports of call as are made by the present service.



THE ATWOOD BENDING MACHINE.

Used in the manufacture of the 3 3-16 inch Stud Link Cable Chain at Lebanon, Pa.



SPEEDING IN SHOAL WATER.

Apropos, to our remarks relative to the speed ranges of large steamers in shoal water, and more specifically to the results of the recent race between the Tashmoo and the City of Erie, wherein we stated that one boat could be allowed to forge ahead of the other according to alterations in the depth of water under their bottoms, the following has just come under our notice:

"Considerable attention is now being given to the effect of shallow water as compared with deep water in offering a resistance to the speed of a vessel traveling in such water, and the retarding effect in shallow water is considerable, so much so that very varying results may be, and are often, obtained on different measured miles from the same boat with the same power. Major Giuseppe Rota, of Spezzia, has made a series of exhaustive experiments with various models to determine the various depths relatively to the draft and displacement of vessels at various speeds. These are embodied in curves and in tables, and we may state that roughly, for speeds for 12 knots, the depth of water required to afford no additional resistance to speed, should be from six to eight times the draft of the vessel, when considered from 12,000 to 1,000 tons' displacement; and at 22 knots the depth should be from 11 to 16 times the depth of the mean draft. These results are very interesting, and show the disadvantage attending speed trials in shallow water."

Of course, there is nothing new in the foregoing, though there is plenty to become known relative to the subject.

There are various approximates, and rules of thumb, such as five times the beam, seven times the draft, a depth equal to the length of hull, the same depth as the influence of the wake is felt etc., etc. On the other hand, the contour of the bottom has doubtless a marked effect, as also the material composing same, the co-efficient of fineness and immersion or displacement of hull, etc.

It happens that Major Giuseppe Rota gives a somewhat wide range when he allows from 11 to 16 times the mean draft at a speed of 22 knots. We have not glanced at a Lake Erie chart, but don't believe that the Erie had 32 fathoms under her bottom all the way from Cleveland to Erie, hence, was not at her best, thus giving the finer lined, lighter draft boat this benefit as well as that of the outside position, and consequently slightly deeper water.

It is, therefore, useless to talk of speeding vessels in shoal water, and ridiculous, if not dangerously so in practice, where they are simply waterborne, or little more.

An ordinary, ancient custom, strictly honored in its observance to-day, is the stray line on the hand log. This is commonly measured off to 20 fathoms, thus clearing the influence of the wake made by vessels under canvas in deep water, and at their limited general speed of from say 3 to 10 or 12 knots per hour. The numerous patent logs permit a still longer drift of stray line, and it is quite within the bounds of probability to say that the wake, termed in this instance the horizontal influence, may in a measure, or a certain ratio, be comparable with the vertical action in retardation of the hull when proceeding in certain depths at varying rates of speed. As we have said, there is still much to be developed along these lines, and one certain way to get every possible foot of speed out of a steamer is to have an abundance of water under her bottom, other conditions being equal.

INTERSTATE COMMERCE.

The latest report on internal commerce from the Treasury Bureau of Statistics states that:

On the Great Lakes the month of April made an extraordinary advance over that of the preceding year. A total freight tonnage of 3,282,841 tons received, and 4,151,090 tons shipped is reported in contrast with last April's movement of 338,135 tons received, and 545,709 tons shipped. This difference between shipments and receipts represents in a general way the amount of freight shipped during the last several days of the month, the arrivals of which occurred in the following month. The registered tonnage passing through the Sault Ste Marie canals in April was 2,322,879 tons compared with 10,121 tons in 1901, and 529,191 tons in 1900. The Portage Lake ship canals shows a registered tonnage of 88,665 tons.

The iron trade for the first four months of this year furnished a tonnage of 657,670 tons in contrast with 529,181 tons for the corresponding period of 1901. The home demand for pig iron from this quarter has almost extinguished exports. Out of a total shipment of 145,261 tons of pig iron in April, only 149 tons were credited to export from Southern iron territory.

The coal trade since January 1 has generally exceeded that of the corresponding period of last year. Cincinnati gained 42.5 per cent., St. Louis shows an increase of 13 per cent. The Chesapeake and Ohio coal tonnage for nine months ending with March was 4,299,000 tons, compared with 3,918,172 tons last year. The coal and coke tonnage over the Pennsylvania lines east of Pittsburg and Erie reached a total of 11,837,998 tons to April 26 of this year, compared with 10,930,812 tons last year. Connellsville coke shipments this year averaged 10,747 cars per week, compared with 10,549 cars per week last year. Coal shipments to domestic ports on the Lakes, mainly from lower lake ports, were 938,096 tons this April, compared with 55,653 tons last April, while coastwise and foreign ship-

ments for the first four months of the year amounted to 2,527,673 tons, of which 693,921 tons were hard coal, and 1,833,752 tons soft coal. The iron ore shipments of 1,774,652 tons bring the tonnage of these two chief articles in lake trade to a total of 4,302,325 tons for the first third of the year. Coal receipts at Boston were 1,762,766 tons, compared with 1,559,313 tons last year. Coal and coke traffic over the Norfolk and Western railway to the end of March increased 13 per cent. over last year, and the Baltimore & Ohio's traffic for April increased 28.8 per cent. above April, 1901.

LLOYDS REGISTER BUILDING LONDON.

A BUSINESS PALACE.

Just now London is pointing with pride to what the Britisher regards as the most gorgeous business palace in the world. "Lloyd's Register," as the new building is known, is located at 71 Fenchurch street. It has just been completed at a cost of half a million dollars.

The new building is not large, hence its comparatively small cost. It is constructed of the finest Portland stone and is a thing of great architectural beauty from the outside. The carvings on the porch and the bronzes between the pillars are by Mr. George J. Frampton, the Royal Academician, and are executed in his best style. The weather "cocks" are two little ships of copper gilt, one a modern liner, and the other an ancient fifteen century sailing craft. Valuable marble, inlaid woods, mother of pearl, and even jewels have been utilized in the decoration of the interior.

T. E. Collcutt, the architect, recently gave the press some details of his work, which in beauty of design and wealth of decoration is indeed a masterpiece. "Quite the costliest part of the building," said Mr. Collcutt, "is the frieze of Lynn Jenkins, representing a procession of medieval ships. The vessels are of bronze, the sky of mother of pearl, and the figures of bronze with ornaments of real sapphires. The faces are carved in ivory."

The magnificent fireplace in the library is of marble, carved by H. Pegram, and the ceiling paintings are to be executed by Professor Moira. The ceiling itself is vaulted and profusely decorated with carvings and gilt. Round the panelled walls are inlaid woods. The supporting pillars are of polished marble. The mantlepiece is exceptionally beautiful carved marble. The fire dogs, of old Italian work, stand six feet high and are worth \$2,500. Even the clerk's office is more suggestive of a palace than a business house, for it is lined with marble, and the electric light fittings are of beaten copper. Valuable old Persian carpets cover the floors.

The story of how the new luxurious building came into existence is rather interesting. For classifying ships Lloyd's Register charges certain fees. The income more than covered the expenses, and a large reserve fund accumulated. For the disposal of this sum, outside the defraying of expenses, there was apparently no provision, so finally it was decided to expend it upon a building that should do credit to London, and take a high place among the commercial palaces of the world.

CHICAGO RIVER FRONT IN LITIGATION.

Five hundred thousand dollars' worth of Chicago river frontage have been stolen from the state, according to a bill filed in the Circuit Court by Attorney General H. J. Hamlin.

In the suit brought by the state the Pennsylvania, the Burlington, the Alton and the St. Paul railways are said to be occupying illegally made lands and the court is asked to oust them. It also is demanded that the defendant railway companies restore the river to its original width of 195 feet, which, if the state shall succeed in its suit, will mean that the railways not only must relinquish claim to the valuable frontage, but must expend a large sum in clearing away the made lands which they are occupying.

The land in question extends from Adams to Van Buren streets, and has an average width of 95 feet. It is occupied by tracks, docks and freight houses.

STATEMENT OF THE VISIBLE SUPPLY OF GRAIN.

As compiled by George F. Stone, Secretary Chicago Board of Trade Saturday, May 24, 1902.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels.
Buffalo .....	528,000	188,000	145,000	90,000	273,000
Chicago .....	4,879,000	2,649,000	422,000	453,000	.....
Detroit .....	122,000	12,000	.....	16,000	.....
Duluth .....	8,116,000	43,000	39,000	5,000	57,000
Fort William, Ont. ....	1,937,000	.....	.....	.....	.....
Milwaukee .....	299,000	4,000	42,000	9,000	76,000
Port Arthur, Ont. ....	150,000	.....	.....	.....	.....
Toledo .....	61,000	238,000	171,000	74,000	.....
Toronto .....	7,000	.....	5,000	.....	.....
On Canals .....	540,000	34,000	243,000	43,000	.....
On Lakes .....	1,556,000	594,000	314,000	143,000	.....
Grand Total .....	30,629,000	4,297,000	2,315,000	974,000	559,000
Corresponding Date, 1901 .....	40,064,000	15,320,000	10,438,000	699,000	1,661,000
Increase for week .....	.....	.....	.....	.....	.....
Decrease " " .....	2,948,000	573,000	699,000	161,000	104,000

While the stock of grain at lake ports only is here given, the total shows the figure for the entire country except the Pacific Slope.

SHIPPING AND MARINE JUDICIAL DECISIONS.  
(COLLABORATED SPECIALLY FOR THE MARINE RECORD.)

Failure to Carry Light.—The claim of a steamer that a collision with a schooner was due to the failure of the latter to carry proper lights is materially weakened by the fact that such omission was not mentioned in the steamer's log, nor in the protest lodged against the schooner on the following day. The Richmond, 114 Fed. Rep. (U. S.) 208.

Contributory Fault—Burden of Proof.—Where fault on the part of one vessel for a collision is established by uncontradicted testimony, and such fault is of itself sufficient to account for the disaster, it is not enough for such vessel to raise a doubt with regard to the management of the other vessel, but any reasonable doubt as to whether the fault of the latter contributed to the collision should be resolved in its favor. The Livingstone et al., 113 Fed. Rep. (U. S.) 879.

Admiralty—Wrongful Arrest of Vessel—Damages.—While ordinarily the arrest of a vessel in a cause of damage by due process is an inconvenience to which the owner is required to submit, without remedy, upon his success in the action, beyond the recovery of costs, yet, when the libellant proceeds without an honest belief that he is using a rightful remedy, and his action is in the nature of a malicious prosecution, he should be held to pay any damages sustained by the owner through his wrongful act. Gow et al. vs. William W. Brauer S. S. Co., 113 Fed. Rep. (U. S.) 672.

Admiralty Practice—Claimant's Bond.—Where, on motion of a libellant in rem, the court made an order, which it had power to make, setting aside a sale of the libeled vessel under a decree entered at the same term in another suit, on the ground of fraud and collusion, unless a bond was given by the claimant, and he furnished an ordinary claimant's bond, on which the vessel was released, he cannot thereafter be heard to deny that the bond stands in the place of the vessel, and is available to libellant in case of his recovery, unaffected by the prior decree and sale. The New York, 113 Fed. Rep. (U. S.) 810.

Overtaking Vessels—Presumption of Fault.—Under article 24 of the navigation act of 1890, which provides that "every vessel overtaking any other shall keep out of the way of the overtaken vessel," where a tug with a tow saw a schooner a quarter of a mile ahead, on nearly the same course, and overtook and passed her, but the tow, which was on a 200-fathom line, did not see the schooner until within 200 feet, and struck her directly astern, negligence must be inferred on the part of both tug and tow, unless there is evidence to warrant a finding that the schooner in some way brought about the collision. The Nathan Hale, 113 Fed. Rep. (U. S.) 865.

Defects—Duty to Warn Employees.—Where several rungs of a stationary ladder on the ship projected beyond the side of the ladder, so that the loading appliances were liable to catch on them, and endanger the gangway man handling the whip, and he had no knowledge of the danger, it was the owner's duty to give him notice, so that he could refrain from exposing himself to the peril if he so wished. The load on reaching the hold was received by an employee working there, who knew the condition of the ladder and the danger from the projecting rungs. He testified that the load was unslung a little forward of the ladder, and the sling hooked up and taken by him to the coaming of the hatch, out of danger from the ladder, etc., and he gave an unsatisfactory explanation as the why it caught on the rung. Testimony on the part of the claimant showed that the load was unloaded forward of the ladder, and in close proximity to it. Held to show that the load was unslung nearer the ladder than the employee was willing to admit, and that he negligently failed to keep it away from the projecting rungs. The Anchoria, 113 Fed. Rep. (U. S.) 982.

Duty of Master.—Libellant, who was a seaman twenty years old, fell to the deck during a gale without negligence on his part, and sustained a simple fracture of the bones of one leg below the knee. There was no surgeon on board, but the master, with the assistance of others, undertook to set the bones, bound the leg in splints, and proceeded on his voyage to San Francisco, where the ship arrived in about ten weeks, and where libellant was paid off, and went to a hospital. The bones had failed to unite, owing to improper and unskillful treatment, and, because of the lapse of so long a time, could not be made to do so, and it became necessary to amputate the leg. At the time of the injury the ship was southwest of Cape Horn, and 450 miles from a port in the Falkland Islands, where surgical aid could have been obtained, and which the ship could have reached in two or three days, although it would have required four or five weeks, owing to headwinds, to put back to such port, and again recover the distance lost. Held, that the injury was such that the master must be presumed to have known that the services of a competent surgeon were required to make a recovery reasonably certain, and his duty required him to make an attempt to procure them by putting into port, regardless of the loss of time and expense incident to such deviation. The Iroquois, 113 Fed. Rep. (U. S.) 964.





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CLEVELAND, O., MAY 29, 1902.

THE refusal of duty by a ship's crew is not mutiny, in-  
subordination is not mutiny, but both, accompanied by  
armed resistance to lawful authority may be considered  
such.

ALL the licenses ever issued by the local steamboat in-  
spectors, if rolled into one, and held by one person, would  
not make that individual amenable to involuntary servi-  
tude. A paltry license is not a slave-owners certificate  
compelling the holder thereof to labor, willing or unwill-  
ing.

PERHAPS the U. S. Commissioner of Navigation would  
sanction a new form of "Shipping Articles," applicable for  
the modern and changed service on the Great Lakes and  
contiguous territory. The eastern limit might terminate  
at the foreign port of Montreal, Canada, so as to coincide  
with the provisions of the "White Bill" on steering and  
sailing rules.

OUR New York contemporaries are surely becoming  
spring brisk about this time. An issue or two ago one of  
them seemed to advocate the carrying of Royals over reefed  
Tops'ls, while last week another advises the abrogation, or  
cancellation in part, of the International Sailing and Steer-  
ing Rules. A third has no opinions to offer in such mat-  
ters either way, nor is it expected that it should.

A NARROW squeak, that for the Steamboat Inspection Ser-  
vice this week, when the masters and engineers of all the  
tugs on the lakes proffered to turn in their personal licenses  
to the local inspectors for action to be taken thereon by the  
Treasury Department. And then to call a court in the  
matter, at Cleveland, with both sides, the Great Lakes  
Towing Co. and the crews of tugs at all lake ports repre-  
sented by the highest legal talent available. The counsel  
didn't plead though or the court might have collapsed at  
the first sentence. The local inspectors give, and the local  
inspectors can take away, licenses, but the men still retain  
the competency and qualifications just the same. Licenses  
vouches for nationality and competency, or ought to, not  
morality, religion or politics, and least of all must they be  
used as a club to chase men into compulsory involuntary  
labor or servitude. What peculiar notions some people do  
entertain! ! !

### HIGHER QUALIFICATIONS FOR MERCHANT MARINE OFFICERS.

It is to laugh—to grow hysterically "squee-dunked," to  
simply think of the imagination which could conceive of an  
underwriter on marine risks becoming the practical pro-  
fessional, technical mentor of the pilot, mate, engineer or  
shipmaster. Such an attempt would outbang Brannigan,  
and it is well known that Brannigan outbanged the Devil.  
The abortive attempt has been made, though, moreover,  
we have not far to look for the latest effort at the ridicu-  
lously innocent like innovation. Furthermore, also and  
notwithstanding, every argument to the contrary, may  
we note abyssmal depths of marine effacement and in-  
nocuous desuetude to which the aspiring originality of the  
chestnutty burrs eventually descended.

To kill the goose which lays the golden egg. Aye! to  
scrape the gild off the gingerbread, to take not only the  
cake, but the whole bakery. Ah yes, those chiefest in con-  
cern holds the greatest responsibility, and the underwriters  
marine millenium will have occurred when marine casual-  
ties no longer take place. This will be the season of their  
peaceful repose and the era of the engine drivers and mate-  
lot's infallibility. Science will not be wanted to demon-  
strate to the mind the requirements of professional, techni-  
cal and mechanical training and skill, now found so neces-  
sary in the commercial linkings of the nations of the earth.

The foregoing is simply a prelude to the question of who  
pays the tariff, it being generally admitted that Jones pays  
the freight on whatever cargo he may ship. To put the  
subject still more clearly before our readers, we may say to  
those who are continually harping on the old refrain of  
"why doesn't the underwriters do this and that, or not  
permit these or those rules or occurrences to obtain," we  
may say, that p'raps they don't have to, need to, or want to,  
alter customary conditions or ruling practices. We have  
passed the Noachian age and its singularly original mari-  
time adventure, and peradventure, could give cards and  
trumps to the shades of any old Venetian maritime assurer  
and then win out in the more modern and multitudinous  
methods of marine underwriting, that is, as between the  
assurer and the assured.

If then, marine underwriting has reached its present  
stage of almost perfectness through and by attending  
strictly to the business of underwriting, it is not to be ex-  
pected that it will now make any departures in attempting  
to guide the seaman on his way.

It being shown, therefore, that the higher education and  
professional skill of the future American seamen can not  
be left at the discretion of, or in any way undertaken by the  
underwriter, the question pertinently arises, to whom then,  
should we look for the advancement and higher qualifica-  
tions of the national and international coastal and ocean  
commerce carriers and directors in the future? Naturally  
we turn to the Treasury Department and that branch of  
it known, as the Steamboat Inspection Service. It is  
part of the duties of this service to grant all licenses (after  
a voluntary, competitive examination) to those engaged in  
the practical handling of all the steam tonnage engaged in  
the mercantile marine.

It is a serious question, and one of national import in  
some of its bearings, as to whether or not all local, and, or,  
supervising inspectors are thoroughly enough versed in the  
commercial business and navigational art as to require the  
proper degrees of efficiency from the candidates for licensed  
honors. It may be said, that, as a rule, the majority of  
these men underwent no special training or course of study  
to obtain their positions. They are taken from the ranks  
of licensed officers and installed into office to move along in  
much the same rut, year after year, nor is there any  
standard of progressive and higher qualifications expected,  
looked for or made mandatory year by year as the cycles  
roll round.

With the rehabilitation of the United States mercantile  
marine and the combining of large important fleets of  
ocean carriers under the material, as a consequence of the  
financial directors of American ownership. The country  
must look to the Treasury Department to provide the high-  
est skill and professional ability in the ranks of those to  
whose care is committed the welfare and successful hand-  
ling of these important interests. Our examinations for  
licenses to prove the capability of applicants and candidates  
should not be a whit less lenient than that of other mari-  
time nations. The honors should be progressive in point  
of rating and professional or mechanical ability and skill

from the engine room to the deck, and year by year the  
qualifications should be advanced, nor need there be any  
fear of them being too far-reaching in these days of the  
survival of the fittest.

Of course there is no immediate, pressing, or absolute  
necessity for at once adopting the somewhat rigid educa-  
tional and navigational tests in force in the German, French  
or British mercantile marine, simply, that the Treasury  
Department should anticipate the requirements of the  
service and provide thoroughly efficient American officers  
to take charge of American floating interests when re-  
quired so to do in the near future. This is to be mainly  
brought about by introducing a higher standard of ex-  
cellence from the future officers of the steam fleet of the  
United States mercantile marine, that is, when we get a  
larger share of our own and the world's commerce to  
handle.

We trust that we have exploded the popular fallacy of  
marine underwriters requiring these higher attributes, and  
that we have pointed out in as lucid a manner as needful  
the means to attain the desired end, and so as to place the  
lake coastal and ocean trade carried on under the Stars and  
Stripes in the van of all other nations, also in line with the  
superiority it formerly held in wooden bottoms under  
canvas.

WE HAVE NOTICED that Mr. Alex. R. Smith, at present  
superintendent of the Maritime Exchange, New York, is  
again in print and quoting liberally from the annual re-  
ports of the U. S. Commissioner of the Navigation, Treasury  
Department. Mr. Smith is a capable, effusive and prolific  
writer: he is also a capable one. Considering his per-  
sonal accomplishments, talents, experience and previous  
servitude, he should make a capital Supervising Inspector  
General of the Steamboat Inspection Service, or in all  
probability, the head of the sister service in the same  
department. A periodic shaking up of dry-bones clari-  
fies surroundings occasionally, just as old service heads  
are liable to get musty, rusty or barnacled. A variation  
in occupation is sometimes charming in its changes; recre-  
ative like.

THE Canadian Pacific Railroad Co.'s steamer Athabasca  
fell in with the small lumber laden steamer Preston, on  
June 29, 1901, from Manistee, Mich., to Port Arthur, Ont.,  
she was in a water-logged condition, a heavy gale blowing,  
and the crew wished to abandon her. Her position was  
then about 30 miles southeast of Passage Island, Lake Su-  
perior. After five ineffectual attempts to tow, the Atha-  
basca ranged alongside and took off the crew, consisting of  
11 men and 2 women. The United States Government,  
The Royal Canadian Humane Association, and this week,  
the Dominion Government through Hon. James Sutherland,  
Minister of Marine, each suitably recognized the skill,  
bravery and heroism displayed by the crew of the Atha-  
basca, according to their respective duties on shipboard.

WHETHER the Commissioner of Navigation is beginning  
to realize the point or not, the time is fast approaching,  
if not already here, when properly authorized Shipping  
Commissioners will be necessary at each of the prom-  
inent lake ports. This feature lies strictly within the  
province of the office of the Commissioner of Navigation.  
his circular letters on the subject to the contrary not-  
withstanding. Statistics regarding lake commerce would  
now be, as they were twenty years ago (*non est*) if that  
branch of the Treasury Department had been guided by  
the replies from circular letters. Owners, agents, ship-  
pers, or consignors are not courting any extra require-  
ments.

THEY sign ship's articles on the coast, receive a por-  
tion of their unearned wages in advance and accept or are  
given transportation to location of vessel, and then it is  
sometimes a query whether some of the members of the  
crew go in her or not. It is one thing shipping and an-  
other thing joining.

WHAT action can be taken against licensed officers who  
are unemployed and subject to no verbal or written agree-  
ment? If any member of a crew declines to obey a lawful  
order he vitiates and violates his agreement, thus render-  
ing himself amenable to the law.



THE Secretary of the Treasury, acting under the advice of the Supervising Inspector General, by and with the unanimous accord of the Board of Supervising Inspectors of the United States Steamboat Inspection Service, has made it compulsory for all steamers to carry metallic life boats. This feature of equipment is not optional, but mandatory. The Board of Supervising Inspectors of Steamboats is to the mercantile marine, the supreme power in the country, the highest tribunal, and represents, ought to, or is supposed to, be composed of the highest talented selection of skilled professionals which the country can produce, and from whose decision there is no appeal, or any one who tries it would find out that there would be little use in "kicking against the pricks," a quotation which we used to hear somehow or somewhere in times gone by. This leads us to the astounding revelation that Federal and State departments are taking risks in ignoring the rulings of the aforementioned august body of professionals, in not exclusively adopting metallic life boats, yet again, worse and more of it, the General Superintendent of the U. S. Life-Saving Service appears not to have been placing orders for metallic life boats so highly endorsed by his sister corps in the Treasury Department. Query! Are metallic life boats the best life-saving boats anyhow?

#### A HANDSOME YACHT.

W. J. Wickes' new yacht, registered "Cornelia, of Saginaw," and named in honor of Mrs. Wickes, has reached the lakes from New York, which port she left on Sunday, May 11. The route was to Troy, N. Y., where the Erie canal was entered, and thence on to Buffalo, 72 locks being passed in passage, necessitating in the canal trip the lowering of the spars, smokestack, etc.

The Cornelia was built originally for coast and ocean cruising by the Gas Engine & Power Co. and Chas. L. Seabury & Co., Consolidated, at Morris Heights, on the Harlem, New York city. She is 110 feet over all, 16 feet beam.

She has an eight foot hold and six foot draft of water; triple expansion engines of 500 horse-power, with a Seabury water tube boiler, allowed 250 pounds of steam, and a speed of sixteen miles an hour. She carries a crew of Capt. Charles B. Moiles, Eng. Walter Henry, three deck hands and two cooks.

In appearance the Cornelia is a smart looking craft, carrying two spars, with a foresail, mainsail and jib, giving a spread of about 400 yards of canvas. She is fully equipped with deck awnings, and all the extra fittings and modern conveniences which go to make a bright and comfortable pleasure craft.

#### ACTION OF THE LUMBER CARRIERS' ASSOCIATION.

Lumber shippers at the head of the lakes have been trying to break the freight rate, and the vesselmen have decided not to accept less than \$2.50 per M feet. Members of the Lumber Carriers' Association have received the following circular letter from Chicago:

At a meeting held Tuesday afternoon of the board of managers of the Lumber Carriers' Association, to consider the lumber tonnage situation:

1. A full discussion was entered into with reference to the present conditions bearing on the situation, the unusual early opening of navigation, the amount of lumber that has gone forward necessarily giving the mills considerable dock room, and enabling them to hold conveniently the lumber manufactured up to this date.

2. The fact that the lumber of this year's manufacture is hardly in condition for shipment as yet, very little of it being over thirty days in cross-pile.

3. It would appear after a careful consideration of the situation that there is not enough lumber to go forward within the next two, or possibly four weeks, to take care of all the tonnage offered.

Therefore it has been resolved that all members of this association will lay up a certain proportion of their tonnage in the following manner:

Those having a steamer and two or more consorts, one barge of each tow to be laid up. Those having simply one consort, the consort to be laid up in order to prevent any demoralization of lumber and freight situation, to take effect immediately upon the unloading of the respective tows. The consort to be either laid up at the unloading port or taken light to home port, at option of owner, and laid up for a period of two, or possibly four weeks, as may later be determined by committee upon receipt of telegraphic advice from each member. Please telegraph immediately upon receipt of this, stating where your tow is bound for, and if you will lay up one or more of your consorts of each tow as above, and await committee's further action.

Your committee has adjourned this afternoon's meeting to await replies to above. Please wire answer immediately upon receipt of this so as to have answer not later than 10 a. m. Thursday, May 29.

#### LAKE FREIGHTS.

The freight rate on iron ore continues fixed with a fair demand for tonnage. The detention experienced chiefly at discharging ports bears no possible chance for any reduction to be made in freights, as even chartered tonnage can't be anything like adequately taken care of and the month's receipts at lower lake ports is likely to fall away below the 4,000,000 ton estimated.

The chief feature in the lumber trade is the strong effort being put forth to cut the \$2.50 figure from the head of the lakes, and the other side of the question as viewed from the standpoint of the owners of lumber carriers, who now suggest laying up a portion of their fleet until shipments become more brisk. The weak plank in this platform is that owners of lumber carriers, are, in some instances, the owners, and consignees, also the charterers.

The coal situation shows lots of room for improvement, and, while the Lake Michigan rate from Ohio ports is still maintained at 45 cents, a slump of 5 cents has been made to Lake Superior ports, including Portage and Marquette, with slow loading at shipping points, and some vessels cancelling charters rather than wait for coal. Toledo and Sandusky were marked in this respect. Shipments of anthracite from Buffalo-Erie are nil, only one cargo of 2,500 tons cleared from Buffalo to Chicago last week. It is figured that only about 25 per cent. of the season shipments has gone forward, and a brisk Lake Superior fall trade is anticipated.

Grain freights were nominally unchanged but weak at 1 1/4 cents on corn, Chicago to Buffalo, and the last day or two only 1 1/8 cents offering, this figure having been reached on Tuesday, and light chartering at that. There is no demand for tonnage at the head of the lakes. The Erie canal traffic is brisk, 33 cargoes of wheat having cleared for tidewater on Tuesday.

#### NO GOVERNMENT DREDGE ALLOWED.

The dredging contracts of the lakes won a victory Tuesday, when the conferees of both Houses of Congress took final action on the rivers and harbors bill, and killed the provision providing for the establishment of a government dredging plant on the lakes.

Ever since last fall the dredging interests have been fighting the measure when it became known that there was a movement on foot to make an appropriation in the bill for a government dredge for the Cleveland district, the contractors fearing that this step would be but the entering wedge for several similar institutions which would eventually result in the government doing its own work on the lakes, and practically killing the business for private enterprise.

One of the big factors in the failure of the dredging combine which was much talked of last year, was the government dredging plant innovation. United States engineers have been of the opinion for some time past that by building to break the freight rate, and the vesselmen have de- than if the work was let by contracts, and the argument was advanced that with the private plants in a combine or trust which could control prices of public work, as far as cost would be concerned, would be at the mercy of the proposed trust.

When the time came and representatives of the various private firms met in Chicago to talk combination and agree upon a basis for forming the trust they could not get together and could not convince the promoters that there was sufficient return in sight for the amount of capital which would have to be invested.

The contractors were a unit on one thing, however, and that was that they would combine forces to knock out the government dredge project, and how well they succeeded is told in the Washington dispatch received, saying that the conferees from House and Senate struck out the House provision for the purchase of dredging plants.

#### ANOTHER POWER CANAL AT THE "SOO."

Another water power canal is to be excavated by the Clergue syndicate at Sault Ste. Marie. It will be the third to use the water of Lake Superior for the Consolidated Lake Superior Co., and will increase the company's facilities to about 110,000 horse-power. All the contracts for the new canal will be made this summer, and the firm is now making estimates.

The canal will require the removal of 400,000 cubic yards of earth, and 600,000 yards of stone, and will be several years in building. This canal will provide power for a great metallurgical plant to treat ores of copper, zinc, silver and gold electrically. The ores for treatment are expected to come from western Canada and from the region to the north of the Sault, where extensive developments are now in progress.

Paper mills are also to be erected under this new power, and contracts for the first of these, a very large plant, it is stated, are already closed.

Contracts for immense grading operations on the Manitoulin and North Shore railway, a Clergue enterprise, are to be made at once. These will be for the extension of the road in the nickel and copper country near Sudbury, Ont. This road is designed ultimately to form a link in the new trans-Continental line of the Canadian Northern road, which now stretches west from Lake Superior into the far northwest on its way to the Pacific coast.

#### FLOTSAM, JETSAM AND LAGAN.

Capt. W. J. Bassett, who sailed the City of Collingwood, has been appointed master of the steamer Huronic.

The passenger steamer Pennsylvania, which is being fitted out at Duluth, will be placed on the Erie-Buffalo route June 4.

The body of Capt. Pardy, who was lost on the schooner Barkalow four weeks ago, was found floating near Peach Orchard Point by George Axtell, of North Bass Island.

The War Department will ask Congress to enact legislation to provide for medals to commemorate service in the war with Spain, the China relief expedition, the Philippine insurrection and such other wars and campaigns as may be undertaken in the United States in the future.

The steamer Edward S. Pease, which went on the bar at South Haven recently, has been dry-docked at the Burger shipyard, Manitowoc. The vessel's bottom will be replanked and a general overhauling of the damaged ship will be done. The repairs will cost about \$4,000.

Capt. Sherman and Mate Delano, of the steamer George Burnham, were arrested at Frankfort, Mich., on Saturday, for assault, with intent to do great bodily harm, on the complaint of a fireman named Read. In retaliation Capt. Sherman threatens to have a part of the crew arrested for mutiny.

The steel barge now on the stocks of the Collingwood Ship Building Co., Collingwood, Ont., will be named Agawa, which is in keeping with many of the names in that portion of New Ontario in which the Clergue Co. operate. The Agawa is 389 feet over all, 276 feet keel. It is expected that the new craft will be launched about June 15th.

The Kirby-Carpenter Lumber Co., of Menominee, once the largest lumber manufacturers in the United States, sold out the last of their saw mill machinery Saturday and closed down their planing mill, the last running, for good. The machinery is now being used in saw mills in nearly every lumber state in the union, including California, Idaho, Oregon, Ohio, Minnesota, Wisconsin, Texas and Southern Michigan.

A dispatch from Portland, Ore., says: The largest cargo of wheat that has ever left the Pacific coast for South Africa will be shipped from Portland early in June on the big ship Speke. This vessel, which is said to be the largest three-masted vessel afloat, was chartered yesterday to load a full cargo at this port for the "Dark Continent" at 27 shillings and 6 pence. This leaves the Columbia river again without a disengaged grain ship ready for business.

One of the largest dredging contracts awarded thus far this season was last week awarded to the Two Rivers Dredging Co. The contract is for work to be done at Sault Ste. Marie, Mich., and the work, which is a government contract, is to dredge the St. Mary river to a greater depth. The contract involves the expenditure of \$80,000. The dredge, which was built at the Manitowoc yards last season, is one of the best dredges on the lakes, and is to be refitted prior to beginning the work. Chas. Simeno is in charge of the dredge.

Because of the shortage of cars and the detention of boats in the ore and coal trades at Lake Erie ports, vessel owners are beginning to cut down their crew expenses. In some cases, all members of crew, except captain, mate, engineers and cook are laid off. At one dock in Toledo more boats are waiting for coal than can be loaded in two weeks. This is a revival of the old times in schooner days so far as the crews are concerned and will now mean no work, no pay. A vessel must earn money to pay wages.

Lying sunk at the foot of Thirteenth street, Bay City, is the tug Witch of the West, a craft that was formerly known all over the lakes, says a correspondent. She was built in Philadelphia, by the Cramps, in 1853, and 30 years ago was brought to the lakes. She has twice been rebuilt since coming here, and nothing is left of her Philadelphia build but her engine. Last season she was in commission, and may be pumped out and floated for work this year, although it appears doubtful, as her former managing owner is dead.

Capt. McCormick, of the life-saving station, Hancock, Mich., has received word from Superintendent Kimball, of the Life-Saving Department, to the effect that bids for a new station at the canal were opened in the department offices May 2. This means that the new station is to be built this year. The work will start within a month. The head of the department inferred that the contract would be let in a few days, so that it is expected that on the next trip of the light-house supply boats the materials will be delivered at the canal for the new station.

The supplementary estimates asked for by the Dominion Government, for the year ending June 30, are \$5,739,301. Among appropriations in western Ontario are \$100,000 for improvements in Port Colborne harbor; \$5,000 dredging at Amherstburg; \$5,000 extension of wharf at Pelee Island; \$14,000 to complete repairs to piers, and for dredging at Port Stanley; \$4,500 for new pile protection works and repairs to old work at McGregor's Creek (Chatham); \$8,200 dredging River Thames, Chatham to Lake St. Clair, and \$10,000 repairs to piers and dredging in Rondeau harbor.





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### THE HEATING EFFECT OF COAL.

In the May issue of Mines and Minerals, in an article entitled "The Heating Effect of Coal," W. R. Crane says:

It is the object of this article to give a simple method, together with a description of apparatus, within the reach of any worker in brass, which will permit such tests to be made with ease and dispatch, and with a fair degree of accuracy. In fact, we do not hesitate to state that, with apparatus constructed and tests made according to the plans and directions given there, just as accurate results can be obtained as with the very expensive apparatus usually employed for such work.

Although it is desirable to obtain the exact calorific power of fuel, yet for most purposes the relative heating effect is all that is necessary. Even a poorly constructed piece of apparatus will give fairly accurate relative results, yet such apparatus should be tested to see if the results with a certain fuel are concordant; if not, it must be discarded.

Such an apparatus (known as a calorimeter) should be in every superintendent's office, whether he has charge of a mine or foundry, and regular and systematic testing should be carried on with all fuels used, especially when they are being changed.

The value of a fuel depends largely upon what it is to be used for. The commercial value differs widely from the actual value, or the value as a heat producer. It is a well known fact that the appearance of a coal is the prime factor governing its marketableness. A coal, excellent in every respect, yet having the external appearance of shale or a poorer grade of coal, cannot be sold until a special market has been created for it, and even then it is no easy task, as such coals are too liable to be adulterated by unscrupulous operators.

The method of mining and the ease with which a coal can be placed on the market affect the commercial value greatly, thus producing a specific value, which, as a rule, is far from constant. On the other hand, the actual value as a fuel is constant, varying only with the proportion of fixed carbon and volatile matter.

It is a common mistake to consider that a coal, bearing same name and produced by the same district, has the same value as all other coals from that district. The amount of heat obtainable from such coals will depend not only upon the actual variations in quantity and quality of the coals belonging to the same horizon, but also on the different furnaces and methods of combustion. The age of the furnace and boiler, as well as the kind, and probably most of all the methods of firing, such as care of grate, ventilation, etc., will have even a more important bearing upon the actual heating effect of a given fuel than will its character—composition, etc. In other words incomplete combustion is often responsible for the small amount of heat obtained, rather than the coal, which generally receives most of the blame. The duty test of a certain coal in a particular furnace, will, therefore, give the amount of heat obtainable for the coal in that furnace, under the various conditions above mentioned, but will give date of little value for other furnaces with their attendant conditions. The results will simply be relative for the coal in the particular furnace. It will, therefore, appear to be necessary for the comparison of coals, first to produce perfect combustion; second, to have the conditions governing the combustion constant.

### COAL HANDLING MACHINERY WANTED.

Consul W. S. Hollis reports from Lorenzo Marquez that, in a recent conversation with Senhor Albers, head of the harbor commission, he was informed that it was intended to make that port a great coaling station. Senhor Albers particularly requested to be put in communication with people in the United States who could supply him with the most economical and up-to-date coal handling appliances, such as trestles, cranes, and machinery for delivering coal from freight cars, 3-foot 6-inch gauge) into the holds and bunkers of vessels. Any written or printed matter addressed to the consul will be submitted to Senhor Albers.

### THE GULF STREAM HAS NO INFLUENCE UPON OUR WEATHER.

Modern meteorology knows that the Gulf Stream as an ocean current has no more effect on the climate of western Europe than the weather vane has on the winds that turn it. The Gulf Stream, in fact, might be engulfed at Colon or dammed at Key West, without anyone from the Scillys to the Hebrides being any the wiser.

That the belief that the Gulf Stream is the sole cause of the mild oceanic climate of western Europe is still held by millions to-day, that it is still taught in the public schools in England and in the United States, and that, although it is absolutely without any foundation whatsoever, it should have come to have all the sacredness of gospel truth—is a tribute to the exuberant rhetoric of one man and to the hypnotic influence of one book. Only be earnest in conviction and picturesque in diction, and your opinion is assured of a safe conduct for several generations. In consequence the "Gulf Stream myth," fathered by Maury, persists, while the broader, grander, and more reassuring facts as to climate and weather causation are viewed with suspicion, and make slight headway against the universal acceptance of a theory that gained its whole value from the way it was stated by a strong man in a transition period in the development of an inexact science. The essential facts are that the Gulf Stream as an ocean current ceases to exist, that is, to differ in set and temperature from the rest of the ocean east of the longitude of Cape Race, Newfoundland. It cannot, therefore, convey, does not convey, warm water to the shores of western Europe, there to modify the climate and give the British Isles the breezes of the "unvexed Bermudas," and Sweden and Norway the warmth of the Carolinas. But, above all, climatic causation is not a function of ocean currents, but of aerial currents, and the mild oceanic climate of western Europe is due to the distribution by the permanent aerial circulation in the whole Atlantic basin of the moderating, mitigating effects of the ocean as a whole.—From "The Gulf Stream Myth and the Anti-Cyclone," by Harvey M. Watts, in the June Scribner's.

### LATEST MARINE PATENTS.

- 700,278.—Reversible screw propeller. Lida Wilson, Brooklyn, N. Y.
- 700,280.—Apparatus for unloading vessels. Cyrus H. Woodruff, Buffalo, N. Y.
- 700,365.—Screw propeller. Charles A. Parsons, Newcastle-upon-Tyne, England.
- 700,393.—Canal boat. Daniel H. Wilcox, Buffalo, N. Y.
- 700,406.—Hydraulic dredge. Gustavis L. Cudner, New York, N. Y.
- 700,470.—Shifting device for piers, etc. William D. Baldwin, New York, and August Sundh, Yonkers, N. Y., assignors to Otis Elevator Co., East Orange, N. J.
- 700,599.—Shifting device for piers, etc., William D. Baldwin, New York, and August Sundh, Yonkers, N. Y., assignors to Otis Elevator Co., East Orange, N. J.
- 700,600.—Shifting device for piers, etc. William D. Baldwin, New York, and August Sundh, Yonkers, N. Y., assignors to Otis Elevator Co., East Orange, N. J.

### AUSTRIAN DEMAND FOR COAL.

Consul F. W. Hossfeld writes from Trieste: I have to report that Mr. Nikolas Revay, of Jasomirgottstrasse 5, Vienna, desires to contract for about 123,000 tons of bituminous coal, to be delivered at his option at Trieste or Fiume, Hungary, within one year. The coal, which is desired for the manufacture of briquettes and coke, should possess baking qualities, should be practically free from sulphur, and should not contain more than from 5 to 6 per cent. of ashes. Fine coal up to three-fifths of an inch in diameter is preferred. There should be, if possible, twenty-four semi-monthly shipments of about 5,000 tons each. Offers, with analysis, may be addressed directly to Mr. Revay.

### AN AVOIDABLE COLLISION.

"The lamentable collision between the steam yacht Aileen and the Staten Island ferryboat Middletown, by which an innocent citizen's life was sacrificed, warrants calling the attention of yacht masters and owners to the fact that a ferryboat is a commercial vessel, engaged in the pursuit of transporting people for hire, making promptness on her trips essential, while a yacht is a pleasure craft and is supposed to have time at the will of the owner, therefore a yacht should not collide with a commercial craft, even if it has the right of way.

This is not law, we know, but it is equity. No yacht owner desires a collision, even if his craft has to go out of her way unjustly or unreasonably to avoid it. This fatal collision at the beginning of the yachting season will doubtless be a warning to others, and should be the means of assuring safety from collision with yachts to every passenger on a ferryboat or passenger steamer."—The New York Marine Journal.

Hark! the fraternity; a Daniel has come to judgment, "therefore a yacht should not collide with a commercial craft, even if it has the right of way."

We were laboring under the apparently unsophisticated impression that the Rules of the Road had just about got to where no one could kick a hole through them under any time, place or condition of situation. That the rules as a whole governed all cases, up to the qualifying clause, and that there was no longer any opportunity for anyone to plead the baby act after getting into trouble.

Is the Marine Journal prepared to say how many lives would be saved, if, by having its own way, yachts were permitted to act unjustly or unreasonably? "No yacht owner desires a collision"—who does?

Let us drive one little truth home to the barnacled brain box of the Journal scribe, (presuming that there is enough sound timber for it to bite in). It goes quite parrot-like; something in this way, Mr. Journal:

"Where one of two ships must give way, the other shall keep her course and speed." Steady, as she goes.

### EASTERN FREIGHTS.

Messrs. Funch, Edye & Co., New York, report the condition of the Eastern freight market as follows:

The amount of business reported in this week's issue is on a limited scale, and the only activity displayed is restricted principally to the timber and deal ports. One charter is reported from the Gulf for timber at gos. to Holland, for Oct.—Nov. loading, which would indicate that owner's are disposed to fix ahead on this basis. Shippers, however, feel rather inclined to hold back, thinking they will be able to secure tonnage later on at lower rates. In all other directions the market remains without any special feature, as business is most difficult to accomplish, even at the low rates ruling. A new feature in the coastwise chartering line is the fixture of three steamers for the carrying of bulk oil, from Texas to Northern U. S. ports, which trade shows considerable signs of advancement, if suitable tonnage is procurable.

Inquiry for Sail tonnage continues very limited, and with an entire absence of shipments in some directions, particularly to the far East, the situation does not present any encouraging aspect.

A special from Ottawa says: The government has decided to commence at once upon extensive improvements at the port of Quebec, for which Parliament has made an appropriation. At present no ocean or line ships can find berths at this port. The improvements will consist of a wharf 1,200 feet long, built out from the wall of the present basin, with an area 470 feet long running toward the breakwater. The whole St. Lawrence route will be put in good shape. A survey will be made of the north channel, opposite Crane Island, where for two miles there is only twenty-four feet of water. The channel will be made thirty-one feet in depth in low water and widened from 300 to 500 feet.



## SUN'S AMPLITUDES.

The following approximate amplitudes of the sun's rising or setting will be given each week in this column during the season of navigation. A second bearing may be taken by compass at sunset, by reversing the east bearing given for the nearest latitude, as the change in declination for a few hours makes but a slight difference in the true bearing of the sun's setting. The bearing may be taken when the sun's center is on the horizon, rising or setting. The elements which may be obtained by taking these amplitudes are the quantities known as local attraction, variation and deviation, or the total difference between compass and true, or geographical bearings.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
May 30.....	E 30° N. = N. 5 3/8 E. = N. E. by E. 3/8 E.		
June 2.....	E 30° N. = N. 5 3/8 E. = N. E. by E. 3/8 E.		
June 6.....	E 31° N. = N. 5 1/4 E. = N. E. by E. 1/4 E.		

LAKE ONTARIO, S. END HURON AND CENTRAL PORTION LAKE MICHIGAN, LAT. 44° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
May 30.....	E 31° N. = N. 5 1/4 E. = N. E. by E. 1/4 E.		
June 2.....	E 31° N. = N. 5 1/4 E. = N. E. by E. 1/4 E.		
June 6.....	E 32° N. = N. 5 1/2 E. = N. E. by E. 1/2 E.		

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
May 30.....	E 32° N. = N. 5 1/2 E. = N. E. by E. 1/2 E.		
June 2.....	E 33° N. = N. 5 E. = N. E. by E.		
June 6.....	E 34° N. = N. 5 E. = N. E. by E.		

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
May 30.....	E 33° N. = N. 5 E. = N. E. by E.		
June 2.....	E 34° N. = N. 5 E. = N. E. by E.		
June 6.....	E 35° N. = N. 4 3/4 E. = N. E. 3/4 E.		

With a compass correct magnetic, the difference between the observed and true bearing or amplitude will be the variation for the locality. Should there be any deviation on the course the vessel is heading at the time of taking the bearing, the difference between the observed and the true amplitude after the variation is applied will be the amount of deviation on that course. If the correct magnetic bearing is to the right of the compass bearing, the deviation is easterly; if to the left, the deviation is westerly.

Steamer and Barge.—A steamer, which, on leaving her wharf in the night, saw the lights in the channel ahead indicating the presence of a tug with other vessels in tow, was bound to proceed with caution, and at a speed which would enable her to keep out of the way and avoid collision, and must be held in fault for a collision, which occurred within four lengths of her pier, with a barge constituting a part of the tow, which had been cast off, and was moving by its own momentum, alone, toward the shore to an anchorage, and carrying proper lights. The Alabama, 114 Fed. Rep. (U. S.) 214.

## JAMES SPENCE ROBERTSON.

If JAMES SPENCE ROBERTSON belonging to Dundee, Scotland, who was, it is believed, about 1889 in Tawas City, Michigan, U. S., and who was, it is understood, latterly acting as a Steward on a Lake Steamer running out of Bay City, Michigan, U. S., will communicate with the Subscribers, he will learn something to his advantage.

REID, JOHNSTON & Co.,  
34 Reform St., Solicitors.  
Dundee, Scotland.

## IN RECOGNITION OF SKILL AND HEROISM.

(Bravery of the crew of the C. P. R. steamer Athabasca.)

The Dominion Government has decided to recognize the bravery of Capt. George D. McDougall and the officers and crew of the Canadian Pacific Railway steamer Athabasca. The Athabasca went to the rescue of the United States steamer Preston, on Lake Superior, June 29, 1901. There was a wild gale blowing and the work of rescue was most difficult. However, eleven men and two women were saved from the rapidly sinking craft. The passengers presented the captain with a handsome illuminated address, the Royal Canadian Humane Association awarded him their parchment certificate for distinguished bravery, and the President of the United States presented the captain with a handsome gold watch, chain and pendant, with a suitable inscription, commending him for his humanity and bravery. Now the Dominion Government, through Hon. James Sutherland, minister of marine, is to present Capt. McDougall with a handsome piece of silver; First Mate McPhee with a binocular glass; Chief Engineer William Lockerby with a gold medal, and the crew with silver medals suitably inscribed, commemorative of the date of the rescue. The presentation will be made in public.

Mr. N. S. Dunlap, tax commissioner of the Canadian Pacific Railway company, was a passenger on the Athabasca when the gallant rescue was made, which brought the heroism of Capt. McDougall and his crew to the notice of the Government, with the result mentioned. On a passage from Owen Sound to Fort William the officers of the Canadian Pacific Railway vessel sighted the Preston flying signals of distress thirty miles southeast of Passage Island. During a heavy gale, which was still in its fury, the barge sprang a leak and battered about helplessly in a fierce sea. Five times the Athabasca took the barge in tow, and as many times the towing cable parted. Then, after much difficulty, the crew, numbering eleven men and two women, were rescued from the Preston, which had already lost her upper works and deckload of lumber. One man from the barge was killed by being crushed to death. The Preston, which was bound from Manistee, Mich., for Port Arthur, with a cargo of lumber for McKenzie & Mann's new elevator, was commanded by Capt. W. J. Harlow, of Toledo.

## NOTES.

THE Stirling Co., manufacturers of the well known Niclausse Water Tube Boiler, with general offices in Chicago, have moved their New York office from the Havemeyer Building, at 26 Courtlandt street, to new quarters in the Engineering Building, 14-18 Liberty street, Room 907.

IN THE museum at the University of Arizona at Tucson, a skeleton of a very large whale found in the desert south of Yuma has been mounted. Other finds of rare value have been made in this same region. In the university museum are the tusks and lower jaw of an elephant found in the Yuma desert.

THE foregoing news note is from the Scientific American, and is remarkable in the conjunction of whale and elephant remains being found in the same locality. Verily, there are more strange things in and about this old earth than all or any of the biologists can dream of.

SEVERAL improvements have been made in submarine boats by the French government recently. A new periscope enables them to survey the surface from a depth of 15 meters, while formerly it was limited to a depth of 6 meters. The new periscope is telescopic. Formerly it was necessary for the submarine boats to keep in constant motion. Now a buoy floating beneath the surface enables them to moor.

ANOTHER process of tempering steel is reported to have been recently discovered in Homburg, Westphalia, Germany, by a man named Knigge, and it is said that the process can be used with every class of steel. A plant has been erected at Ruhrot Harbor, and it is the intention to build a large factory at this place. Mr. Knigge

claims that his process is only one-fourth as expensive as the Krupp method, and, at the same time, far more effective, as bullets which have been hardened by his method had pierced Krupp armor-plate. Mr. Knigge looks for great results from his process in the axle-tree and ball-bearing industries. As is well known, numerous methods for tempering steel have been discovered, which showed excellent results in small experiments, but which could not be used in connection with large quantities.

## Government Proposals.

SEALED PROPOSALS will be received at the office of the Light-House Board, Washington, D. C., until 2 o'clock p. m., June 6, 1902, and then opened, for furnishing the materials and labor of all kinds necessary for the construction and delivery of the twin screw steel steam light-house tender, Crocus, for a fixed sum for said vessel, delivered either at the Buoy Depot, Buffalo, N. Y., or at the light-house depot, Tompkinsville, N. Y., as will be determined upon by the Light-House Board. Proposals, plans and specifications can be had by applying to the Light-House Board, Washington, D. C., or at the office of the Light-House Inspector, Buffalo, N. Y. Norman H. Farquhar, Rear-Admiral, U. S. N., Chairman.

**FOR SALE** One Air Pump  
31 inch diameter, 12 inch  
stroke, arranged for direct connection,  
in good condition, taken from S. S.  
Manitou to be replaced by a larger  
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Also one hoisting engine 12 inch  
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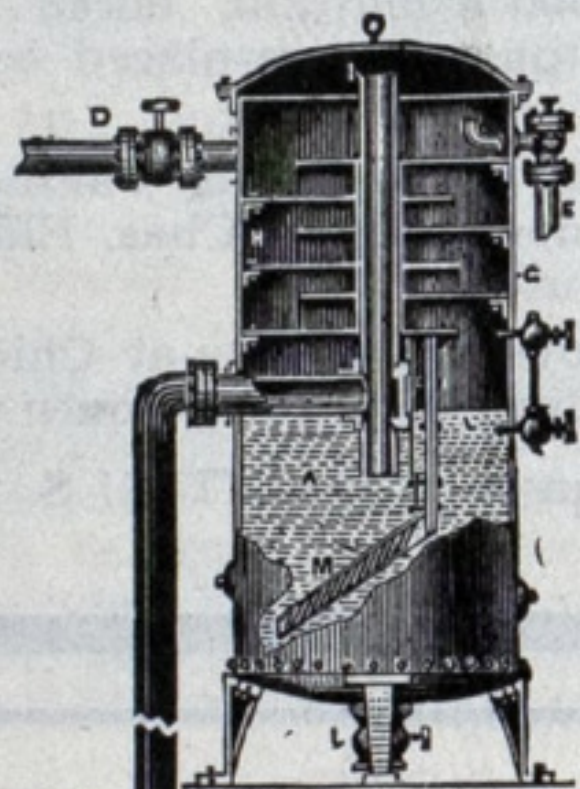
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Minnesota Iron Co.'s steamer Presque Isle.  
American Steel Barge Co.'s steamer Alex.  
McDougall.

Lake Michigan & Lake Superior Trans-  
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Bessemer Steamship Co.'s steamers S. F.  
B. Morse and Douglas Houghton.

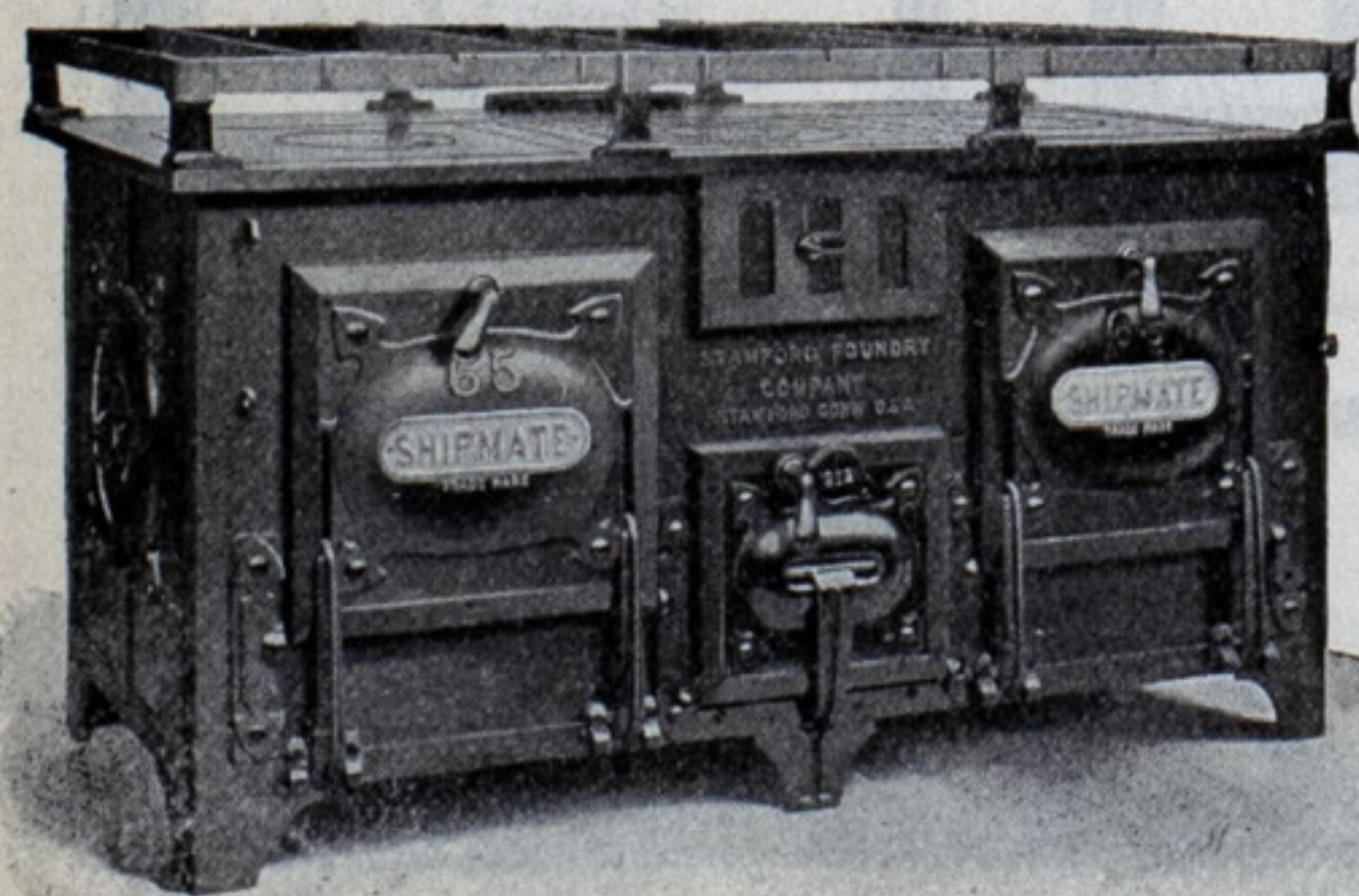
American Transportation Co.'s steamers  
John Harper and Alex. Nimick.

Red Star Line's steamers Robert Mills and  
Wyoming.

Wilson Transit Line's steamers W. D. Rees  
and Andrew Carnegie.

And the steamer William R. Linn.

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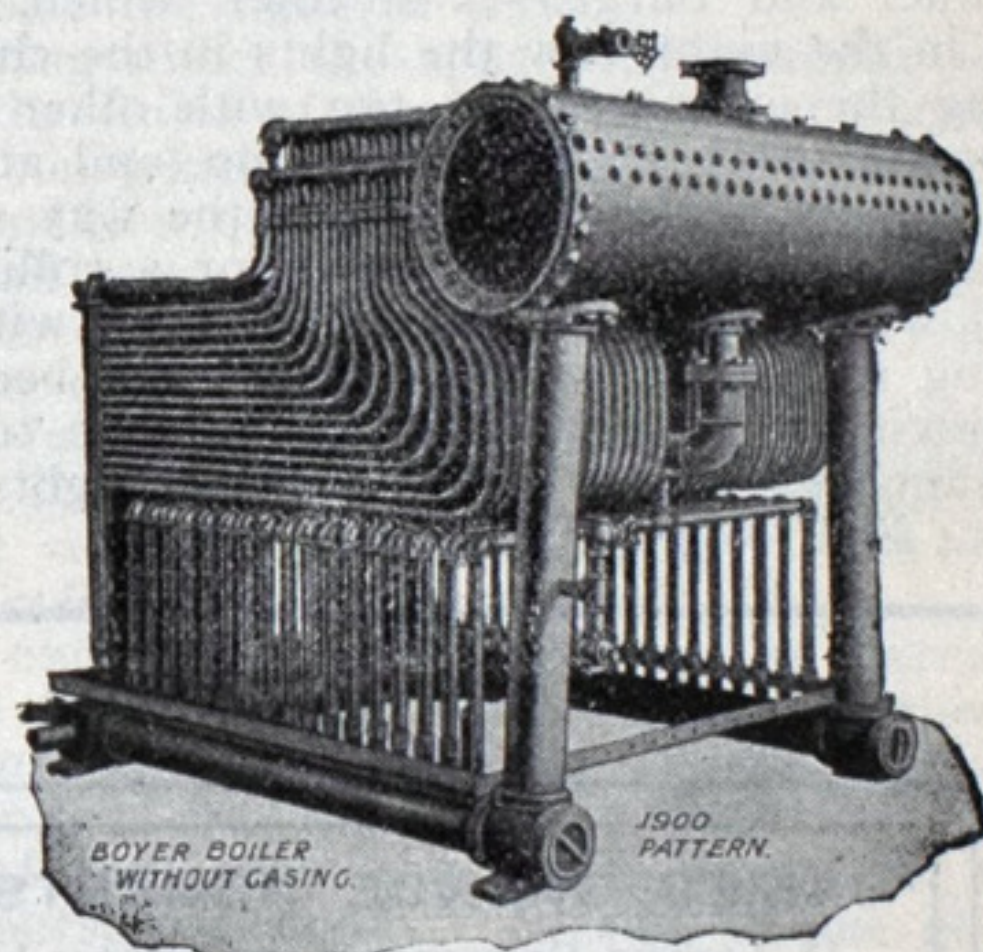
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HOW THE SKIPPER FOUND HIS WIFE MINNA.

If one could but listen long enough to the skipper, he would be pretty certain to absorb something of the unhurried philosophy of the German. "One time," said the skipper—he spoke in jumps, but without ever hurrying himself, slow and easy jumps, between pleasant puffs from his pipe, "one time I was a great racing man. I was the one German on this racing-boat—the others English, English all. I was mate. We win at Kiel ten races, at Copenhagen seven races, at Christiania—(you know Christiania in Norway?—yes?) three races in Christiania, five races in Stockholm. We win races in all places. I get—for prize-money—500 marks one week, 500 marks another week, 400 marks, 200 marks, and like that—always something. Ach, we haf such a time when we go ashore. Eferywhere we go we haf such a time—a hellufa time you say in New York and New Orleans—yes. I come to Hamburg in September to go home, Racing is ofer for year. I say I will haf good time in Hamburg for one day and then go home to my fader and my mudder. But not only one night, but one week, I stay in Hamburg. I haf 2,300 marks when I come to Hamburg. I haf 300 when I go. Very lucky to haf 300, yes. I go home and say to my fader where I was and how I haf behafe. He say, 'Gif up racing—not good for you. Go fishing, safe money, buy boat, get married, and stay here.' I say 'Fader, who vil I marry?' He say, 'Nefer mind, there is plenty good girl—plenty. I say, 'Fader, in England I know one girl. She was the man that keep the dock-ship's daughter. I was up top of the mast, and she look out window and say, "Hollo, young sailor-mans." I say, "Hello, English girl." Fader, I like that girl. She write me. I haf letter here from that girl.' My fader say: 'Nefer mind that English girl. She forgits you next month, next year.' I say, 'No, fader.' He say, 'Charlie, yes.' Next month afterward, when I go to my brudder's wedding, I meet my brudder's wife's sister, and we are married."—From "On a Baltic Sea Sloop," by James B. Connolly, in the June Scribner's.

F. & P. M. Railroad car ferry No. 18, which is building at Cleveland, will be the finest on the lakes, costing \$400,000. She will be 338 feet long, 56 feet beam, 19 feet 6 inches deep. She will have four tracks and carry 30 cars, besides having berthing accommodations for 250 people. Her total passenger capacity is given as 5,000. The hull forward is given a double thickness of steel plate, which will protect her from ice.

WIRELESS TELEGRAPHY ON LAKE MICHIGAN.

The Northwestern Wireless Telephone & Telegraph Co. proposes by June to have a wireless telegraph station at St. Joseph. If this proves successful other stations will be built on the eastern shore of Lake Michigan. Stations are already under way at Milwaukee and Chicago. The system which is to be installed has been tested at Lincoln park, Chicago. It is that of A. B. Saliger, of the University of Washington, who believes he has improved upon the methods of Marconi. The company estimates that it can transmit messages to and from vessels between Chicago and St. Joseph for ten cents for a ten-word message, or for fifteen cents less than the rates of a land telegraph company.

PURCHASING TIMBER IN CALIFORNIA.

Merrill Ring & Co., of Saginaw, Mich., are interested in a deal to purchase the lands of the American Lumber Co., in Humboldt county, California, familiarly known as the Scotch syndicate lands. They include between 35,000 and 36,000 acres of very valuable redwood timber, and the stumpage is estimated at 2,500,000,000 feet. The Hammond Lumber Co., of New Jersey, and W. H. Gratwick, of Buffalo, are interested with the Merrill Ring Co., in the purchase. The terms of the option have not been made public, but it is understood the deal involves a consideration of \$2,500,000. The sale will probably be consummated within a few days.

Senator James McMillan says that the government dredges provided for in the rivers and harbors bill now in Congress, are not intended to do the general dredging work of the government on its contracts, but will be used in emergency work in the localities in which they are to be stationed. The various dredging contract firms on the lakes set up an awful howl at the time the matter was under consideration, and claimed that to have the government do its own dredging work would knock them out of the returns for the vast sums they have invested in plants. This, Senator McMillan says, will not be the case, as the government dredges will only be used where the work is required to be done quickly, and when there will be no time to advertise for bids and let contracts, the nature of the jobs in many instances being such that immediate attention is imperative, and this could not be given when bids and contracts with private enterprises would enter into the plans.

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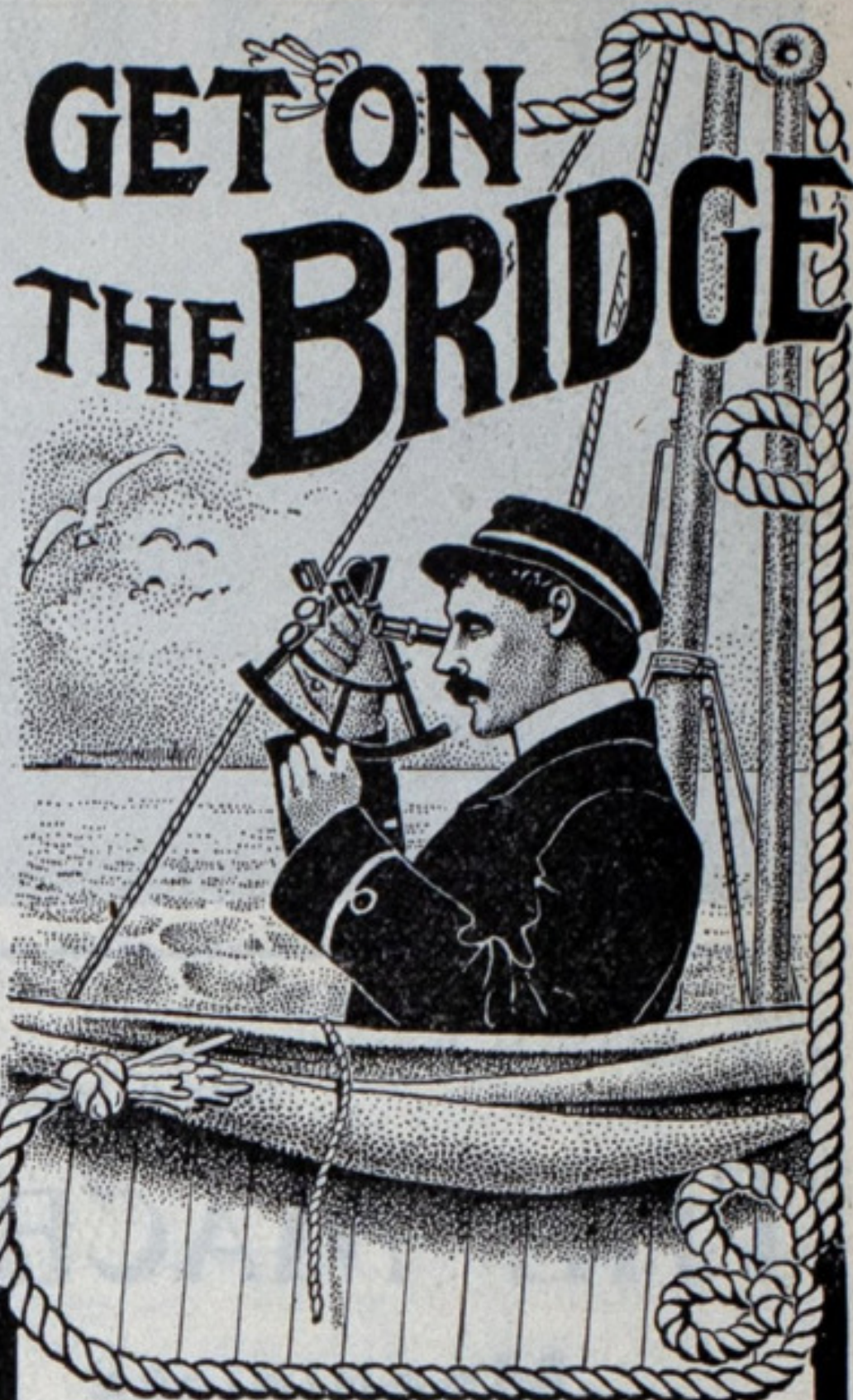
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S. FIX'S SONS,  
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**GET ON THE BRIDGE**

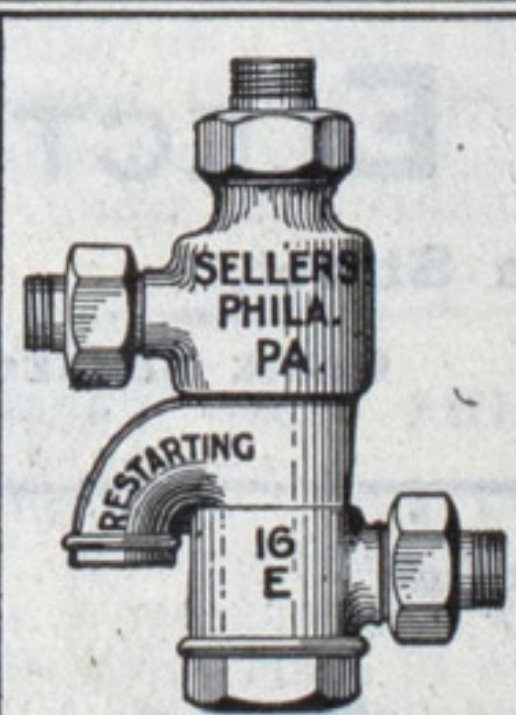
**D**ON'T be satisfied with a low-grade license or an ordinary seaman's bunk. We can train you for something better. No matter whether you are working on river, lake, coast, or ocean craft—either in the engineer's or deck department—we can train you to pass the necessary license examination for the position ahead of you. We have done it for hundreds of others in your business. Why not for you? Mark **X** in the coupon below before the position you want, cut out the coupon, and send it to us with your name, address, and occupation. We will explain our plan.

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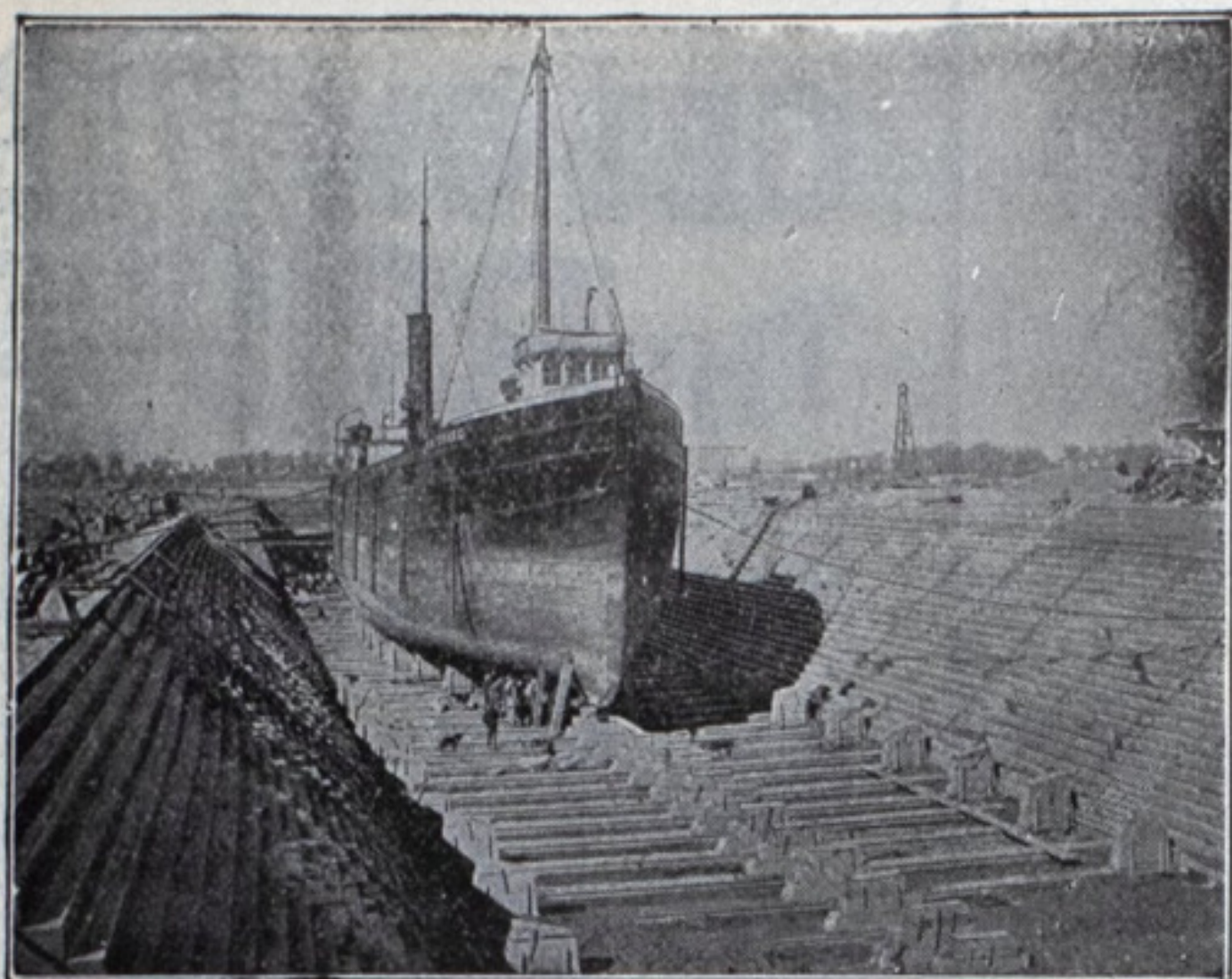
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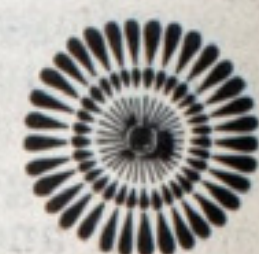
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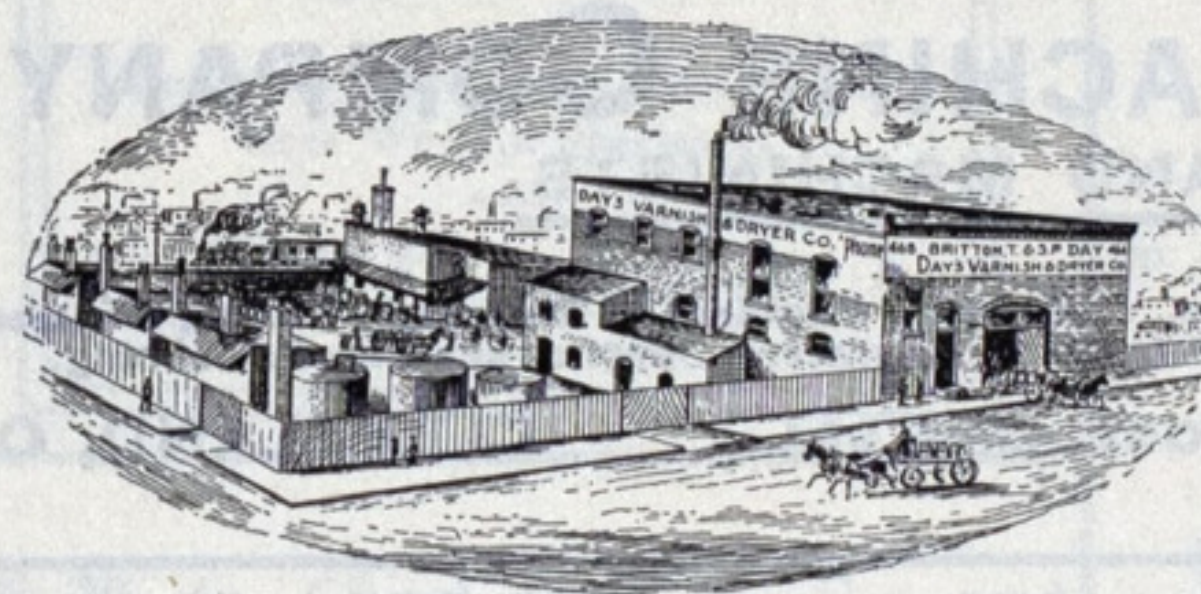
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